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ANNUAL REPORTS, WAR DEPARTMENT
FISCAL YEAR ENDED JUNE 30, 1916

REPORT OF THE
SURGEON GENERAL
U. S. ARMY

TO THE SECRETARY OF WAR

1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

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REPORT OF THE SURGEON GENERAL OF THE ARMY.

WAR DEPARTMENT,
OFFICE OF THE SURGEON GENERAL,
Washington, September 1, 1916.

The SECRETARY OF WAR.

SIR: I have the honor to submit herewith the annual report upon the work of the Medical Department. This covers a study of the health and sanitary conditions of the Army for the calendar year 1915, and a financial statement for the fiscal year ending June 30 1916. I desire here to invite attention to certain matters of interest in this report.

GEOGRAPHICAL DISTRIBUTION.

The United States Army, aggregating approximately 100,000 men, had during the year 1915 a wide geographical range in its various activities. Troops were stationed in greater or less numbers from the sixty-sixth meridian of west longitude to the one hundred and fifteenth meridian east of Greenwich, and from the sixty-fourth degree north latitude to within 7° of the equator; distributed over two hemispheres, literally, from St. Michael to Mindanao, and from Porto Rico to Pekin.

The significance of this far-extended field of action in its relation to the health and disease of the Army is readily appreciated by the most superficial investigator, and to the student of vital and social statistics and their application to the comparative study of races and nations, it assumes a particular importance.

The medical officers of the Army in their capacity of sanitary advisers to the line, have thus had the opportunity of studying and applying the recent advances of modern preventive medicine under the most varied and interesting conditions.

In all the changing circumstances of garrison, camp, and field, the work of the Medical Corps has measured well up to the best traditions and to the highest standards of the profession. The success they have achieved is the result of earnest and painstaking effort coupled with the most important factors—the sympathetic cooperation and loyal support of those they served.

The following are the officers who have held, during the last year, the responsible position of department surgeon in the several military departments of the Army:

Col. Charles Richard, Medical Corps.
Col. Rudolph G. Ebert, Medical Corps.
Col. William H. Arthur, Medical Corps.
Col. Henry P. Birmingham, Medical Corps.
Col. William Stephenson, Medical Corps.
Col. Guy L. Edie, Medical Corps.

Col. William D. Crosby, Medical Corps.
Col. Charles M. Gandy, Medical Corps.
Col. Walter D. McCaw, Medical Corps.
Col. Henry S. T. Harris, Medical Corps.

GENERAL HEALTH OF THE ARMY.

The general health of the Army was excellent during the year 1915. There were no epidemics or unusual incidence of infectious diseases.

The mean strength of the entire Army for the calendar year 1915, upon which the statistics contained in the annual report are based, was 103,842.

The noneffective rate for the entire Army for 1915, from all causes, was 25.22 per 1,000 (for disease alone 20.85), which is slightly higher than that for 1914, the lowest noneffective rate in the history of the Army; but still much below the rates for any preceding year, except 1913, when the rate was 23.98. The noneffective rate during the past decade shows a steady reduction. In 1906 it was 47.86 per 1,000.

The admission rate for the entire Army for 1915, was 726.19, as compared with 660.45 per 1,000 for 1914. With the exception of 1913–14, the 1915 admission rate is the lowest in the last 10 years. The admission rate shows a marked decline since 1906, when it was 1188.00 per 1,000.

The death rate of the entire Army for 1915, from all causes, was 4.45 per 1,000, compared with 4.40 for 1914, which was the lowest mortality rate in the Army for many years. The death rate from disease was 2.53 per 1,000 for 1915; the same rate for 1914 was 2.35, and that for 1906 was 3.77.

The discharge rate for the year 1915, from all causes, was 14.06 per 1,000, somewhat higher than 1914, when the rate was 12.78 per 1,000, but still markedly less than the discharge rates prior to 1910, when they ranged from 16.64 upward.

The total losses of the Army, from all causes: Deaths, discharges, and retirements, was 18.03 per 1,000 for 1915; for the year 1914 it was 16.86, the lowest in the past decade.

Malarial fevers show the lowest noneffective rate in the history of the Army, 0.54. In 1906 the noneffective rate for malarial fevers alone was 2.55 per 1,000. The decade following has demonstrated the effectiveness of the antimalarial measures that have been unceasingly employed by the sanitary officers of the Army each year, exhibiting, with but two exceptions, a marked decrease in the incidence of the disease.

The record in the Philippines has been specially creditable compared with former years, though here, as in the Canal Zone, the Medical Department has been at some disadvantage, through lack o screening or other antimosquito requisites, due to insufficient appropriation of funds for this important work. There should be no further delay in properly screening all buildings in the Tropics occupied as hospitals, barracks, or quarters.

The highest noneffective rate, for disease alone, for 1915 was among the troops stationed in China, 31.78 per 1,000. Then follows in order: Panama with 21.66; the Philippine Islands with 21.42; th

United States, 20.90; Porto Rico, 20.57; and Hawaii and Alaska with the lowest noneffective rates for the year 1915, 16.20 for Hawaii and 6.02 for Alaska.

TYPHOID FEVER.

There were eight cases of typhoid fever in the entire Army during the year 1915; no deaths resulted, all making good recoveries. Of the eight cases mentioned, four only occurred within the continental limits of the United States; the four other cases of typhoid fever were reported from Hawaii.

During the Spanish-American War, from May 1, 1898, to June 30, 1899, the total number of deaths in our armies, Regular and Volunteer, was 6,619. This was equivalent to an annual mortality rate of 33.03 per 1,000 of strength; the rate for disease alone being 25.68. Typhoid fever was accountable for more than one-half of the deaths from disease. The total number of deaths from typhoid fever was 2,774—equal to an annual rate of 13.84 per 1,000.

In the United States the regulars lost 361 and the volunteers 1,890 from this fever; these numbers being equivalent to the respective rates of 7.78 and 18.21 per 1,000 of strength.

The record of the fight against typhoid fever in the United States Army during the decade and a half since the Spanish War, constitutes one of the most interesting and brilliant chapters in the history of preventive medicine, beginning with the epoch making investigation of the "Typhoid Fever Board" into the manner of infection and dissemination of the disease in the military camps of 1898, and culminating 12 years later in the equally notable adoption of antityphoid vaccination in the United States Army.

The results following compulsory vaccination in the Army are now well known and are exemplified by the record of the present year.

MALARIAL FEVERS.

Malarial fevers no longer occupy the high place of a few years past in the sanitary statistics of the Army, when they ranked well up to the top of the list of those diseases producing the greatest admission and noneffective rates in our service. These rates have been steadily falling for the past decade, with the exception of the year 1912, when an unavoidable exposure of troops in a tropical campaign occurred with a resulting increase in the number of cases. The control of the disease in the Philippines since that time deserves special notice.

The admission and noneffective rates for the year 1915 for these fevers are the lowest in our experience in the Far East. This result has been achieved in spite of a serious sanitary handicap existing at certain of the posts where lack of screening in barracks and quarters and a badly malarial infected native population in close proximity makes the task a discouraging and difficult one. Appropriation of adequate funds for the proper screening of all hospitals, barracks, and quarters in the Philippine Islands should not be further delayed.

The admission rate for the entire Army during 1915 was 25.16 per 1,000, and the noneffective rate was 0.54 per 1,000.

MEASLES.

Measles is a disease rarely considered as serious by the layman and the practitioner, who see only an occasional isolated case without complications. Under ordinary conditions the mortality from the disease itself is not high, but in certain epidemics occurring among nonimmune (native) populations, in large institutions, schools, and armies, pulmonary and middle-ear complications make measles the most formidable and deadly of the eruptive fevers.

In the United States Army, outside of the recruit depots, but few cases of measles occur, and these usually in a mild form. The experience with the disease at several of our recruit depots has been quite otherwise, however. At these depots, during the winter months the period of most active recruiting, large numbers of young adults are assembled for instruction and equipment. A great many of these youths are from the country districts and particularly susceptible to infectious disease. Given cold weather, necessitating indoor life, an overcrowded barracks, young and nonimmune individuals in connection with the appearance of a specially virulent form of measles such as has repeatedly prevailed at Columbus Barracks, Ohio, and Jefferson Barracks, Mo., and you have the conditions which make an epidemic of measles much more to be feared than smallpox.

As has been stated, respiratory complications, particularly bronchopneumonia and empyema, together with frequent involvement of the middle ear, inevitably results in a high mortality and discharge rate.

The insidious onset of this disease among recruits and its rapid spread, when once started, through congested quarters, has, in the past, necessitated the cessation of recruiting for months and the rapid evacuation of the depots; all ordinary methods for the control of those epidemics having proved unavailing.

The chief factor in the spread of measles, as it has appeared in our Army, has resulted almost always from the overcrowding of susceptible and infected recruits.

Before another season brings its usual round of cases, complications, and criticisms, prompt steps should be taken by the proper authority to provide at all of these recruit depots, and particularly at Columbus Barracks, Ohio, and Jefferson Barracks, Mo., the much-needed and often-recommended additional barracks.

TUBERCULOSIS.

Tuberculosis is the cause of the highest death rate in all armies under peace conditions, differing in no way in this respect from the experience among the civilian population, where it produces the greatest mortality of any infectious disease.

In the United States it has been stated that tuberculosis is responsible for approximately one-tenth of the deaths annually.

The difficulty of recognizing this disease in its early stages accounts in part for its appearance among soldiers in spite of the rigid and thorough physical examination to which they are subjected on admission into the service.

All cases of tuberculosis among American troops are sent, withou delay, to the United States Army General Hospital, Fort Bayard N. Mex., for prolonged treatment, if necessary, under climatic and other conditions most favorable for the arrest of the disease. The Army General Hospital at Fort Bayard, N. Mex., is intended, primarily, only for those who have pulmonary tuberculosis. The highly creditable record of cases in this hospital, for a decade or more, under the command of Col. George E. Bushnell, Medical Corps, a very distinguished authority on all that relates to tuberculosis, has been a gratifying feature of Army medical administration.

The admission rate for this disease for the entire Army for 1915 was 3.49 per 1,000.

VENEREAL DISEASES.

Venereal diseases still continue to constitute in the Army of the United States, as in those of other countries, a very serious factor against military efficiency of the Army, just as in civil life these same diseases occupy a similar commanding and threatening position in their relation to the welfare and usefulness of the community and State.

It should be clearly understood that the Army sanitarians and the military authorities generally are fully aware at this time, as they have been for many years past, of the necessity and importance of attacking and limiting by every possible means these so-called social diseases. To that end there have been formulated and put into vigorous operation measures designed to control to the greatest degree possible these infections, which always have their origin, so far as the soldier is concerned, quite outside of his military life and duties and far removed from any military authority or discipline. It is believed that no more comprehensive system of attack against a disease has ever been instituted in the Army or elsewhere than that at present in active operation in the United States Army.

It includes, among other features, regular medical examinations twice a month; prompt isolation, quarantine, and hospital treatment until cured of all found with infective conditions; court-martial and stoppage of pay; the hearty encouragement of athletic games and sports of all kinds; the furnishing of rational amusements; libraries, opportunity for study and for school; the best of food and clothing; and last, but not least, an earnest appeal to the moral and ethical side is not neglected.

In brief, the Army is controlling its own limited area and is successful within its garrisons and camps. The same measures, or similar ones, adopted by nearby civil communities would be equally effective. Until either the sex instinct is abolished or much altered, or Federal control is invoked as in certain other diseases far less threatening, we may expect that the disability from this cause will continue. In the meantime there should be no relaxing of effort on the part of the Army. The fight will be vigorously continued, with constant hope for increasing assistance and cooperation from the civil communities whose interests are quite as vitally concerned as those of the Army.

In connection with the subject, attention is invited to the remarkable report of the Royal Commission on Venereal Diseases, lately published in England, and also particularly to the recent State legislation in Australia, dealing drastically with venereal infections of every character.

ALCOHOLISM.

The admission and noneffective rates for alcoholism in our Army have steadily diminished during the past decade and a half, keeping pace with the general public sentiment and decreased use of stimulents of this character among all classes in all walks of life in this country.

The Army has banished alcohol from its garrisons and camps and the Navy has eliminated it from its ships and yards. All this before the outbreak of the great war, the struggle which, if it proves nothing else, has demonstrated long since, by the similar action of the various nations engaged, that alcohol and military efficiency have nothing in common and must hereafter be held unqualifiedly antagonistic.

LEGISLATION.

As a result of legislation reorganizing the Army under the national defense act of 1916, the Medical Department was placed, for the first time in its history, upon a satisfactory basis. This is especially true of the commissioned personnel.

The Medical Corps was reorganized upon a basis of seven medical officers to each one thousand of the enlisted strength of the Army, the increase to take place in five annual increments. This increase will add 1,107 officers to the Medical Corps of the Army, raising the total from 443 to 1,550. The ratios in the various grades remain as provided by law in the act of April 23, 1908:

	Per cent.
Colonels	3.16
Lieutenant colonels	5.42
Majors	23.70
Captains and lieutenants	67.72

The Dental Corps was reorganized and the probationary contract system abolished. Dental surgeons are now commissioned as first lieutenants and after eight years' service promoted to captains. It is further provided that after 24 years' service, not to exceed 15 dental surgeons may be promoted to the rank of major.

The Veterinary Corps was established and becomes an integral part of the Medical Department. Appointments are made to the Veterinary Corps as assistant veterinarians with the rank of second lieutenant. After five years' service they are promoted to first lieutenant. The law provides that after 15 years veterinarians attain the rank of captain and after 20 years' service the rank of major.

A very important provision is made in the national defense act of 1916 for the assignment of not to exceed five officers of the Medical Department of the Army for duty with the military relief department of the National Red Cross, and also permits the erection of storehouses on military reservations for the use of the Red Cross and the use of Government buildings for the storage of their medical supplies.

Col. Jefferson R. Kean, Medical Corps, distinguished as a sanitarian and executive, becomes the first director general of military relief of the Red Cross, and has already utilized his extended experience to the very great advantage of both the Red Cross and the Army.

ARMY MEDICAL SCHOOL.

The Army Medical School, located at Washington, D. C., has had an unusually successful year.

Col. William H. Arthur, Medical Corps, is the present head of the school and has been its commandant since October, 1915. Associated under his direction, the staff of professors and assistant professors and special lecturers have given a valuable course of instruction to the student class, consisting of officers of the Medical Reserve Corps, who were candidates for appointment in the Medical Corps, medical officers of the Army and National Guard, and enlisted men of the Medical Department who were ordered to the school for special instruction.

The course has covered a wide range of subjects relating to medico-military science, the instruction being both theoretical and practical.

The laboratories of the school have produced all the vaccines used in the United States Army and in the National Guard, and have likewise furnished the antityphoid vaccine for the United States Navy.

The importance of this school to the military service can hardly be overestimated, and it is recommended that steps be taken looking to the securing by the Government of a suitable modern building specially designed for the Army Medical School. Heretofore its activities have been handicapped by crowded or imperfectly arranged rented buildings, and while the present quarters, recently occupied, are much better adapted to the purposes of the school than any of its former homes, yet they are far from ideal either in location or arrangement and leave much to be desired.

The Government should provide the Army Medical School with a permanent and modern home of its own.

LIBRARY OF THE SURGEON GENERAL.

It is desired at this time to call attention to the remarkable development during the past half century of this important adjunct of the Medical Department of the Army, and particularly to the great present need of a modern fireproof building for the proper housing of these valuable collections.

The Surgeon General's library began as a small collection of medical books in the office of Surg. Gen. Lovell in 1835, numbering about 228 volumes in 1840, and increased to about 587 in 1862.

The library in 1865 came first under the master hand of John Shaw Billings, and to this able medical officer and distinguished bibliographer must be given the greatest credit for several unique features in connection with its development. In 1889 the collection consisted of about 1,000 volumes. In 1895 it had grown, under the administration of Capt. Billings, to 300,000 portraits, books, and pamphlets. During this period the librarian conceived and promptly initiated the ingenious plan of a medical catalogue, indexed for author and subject, that should embrace not only monographs and standard works but the reports of individual cases upon which so many conclusions of medical science depend.

From this beginning has developed the universal catalogue of medical literature. The Index Catalogue, the first volume of which was issued in 1880 and consisted of 880 quarto pages. Since that date at least one such issue has been made annually by him and his able successors; Billings himself having edited the entire first 16 volumes, which ran through the alphabet.

This index, requiring great technical knowledge, infallible arrangement, and unceasing industry, has been kept fully up to date and to the latest professional advances, and, making its way over the earth wherever medical science is known, has brought great credit to the Army, fame to its designer and compilers, and has received the high commendation of the whole world—praise not given to mediocre work.

The present librarian, Lieut. Col. Champ C. McCulloch, jr., in his annual report to this office, makes certain recommendations which are concurred in.

The Surgeon General's library on June 30, 1916, contained 563,238 bound volumes, theses, journals, transactions, unbound volumes and pamphlets, constituting the largest collection of medical literature in the world.

ARMY MEDICAL MUSEUM.

The Army Medical Museum was begun under the direction of Surg. Gen. William A. Hammond, United States Army, in 1862. It began very modestly, as all the great collections have, but with the passing years and under the skilled direction of many capable and devoted hands, it has grown into one of the largest, most instructive, and valuable museums in existence.

It consists now of approximately 47,000 specimens: Pathological, anatomical, comparative anatomy, microscopical, and miscellaneous, and about 15,000 photographs and negatives. About 8,000 specimens have been donated or exchanged with other instititions.

MEDICO-MILITARY OBSERVERS OF EUROPEAN WAR.

The Medical Department has had six representatives with th armies of the countries now at war. These officers of the Medica Corps are Lieut. Col. Alfred E. Bradley, Majors Joseph H. Ford James Robb Church, Clyde S. Ford, and William J. L. Lyster, an Capt. Perry L. Boyer.

Maj. Joseph H. Ford spent approximately 13 months with th Austro-Hungarian armies on the eastern front, his detail extendin from September 26, 1914, to October, 1915. His reports received i this office have covered a wide range and are most comprehensive an valuable.

Maj. James Robb Church, who has been present with the Frenc Army on the western front since January 28, 1916, has already fo warded much information of value in his reports on the medic military conditions coming under his notice.

Col. Bradley, Maj. Clyde S. Ford, and Maj. William J. L. Lyst were officially detailed by the War Department as observers wit the British forces in May, 1916, and are now actively engaged wit their duties in the field. Their arrival in Europe was opportun and the information received indicates that their observations will b of great interest and value professionally and scientifically.

Maj. Perry L. Boyer was in London, England, at the outbreak of the war and departed therefrom September 10, 1914, en route to Paris, France, as an observer with the French armies, being on duty in France until November 25, 1914, when he returned to the United States.

The reports made by the members of the Medical Corps detailed as observers in Europe are of such a character as to warrant, at the proper time, their presentation in an extended form for the information not only of the medical and military student, but for the interest they will have for the general reader.

ARMY NURSE CORPS.

The reports of the work of the Army Nurse Corps have been most gratifying, and a much-needed increase has been authorized for the coming fiscal year. Great care is exercised in the selection of its personnel, with the result that most satisfactory work is being done.

The mobilization of the regular troops and militia having resulted in the establishment of many hospitals on the border, the appointment of 276 nurses was authorized to meet the emergency. At this time there are on duty at the border hospitals:

Base hospitals:	
Fort Sam Houston, Tex	[1] 54
Fort Bliss, Tex	26
Brownsville, Tex	20
Eagle Pass, Tex	24
Nogales, Ariz	16
Camp hospitals:	
Deming, N. Mex	10
Laredo, Tex	10
Douglas, Ariz	10
McAllen, Tex	12
Total	182

Nurses have been and are being appointed in the regular corps as rapidly as possible to meet the need, and their numbers have been further augmented by the assignment to active duty of a large number from the reserve list, the enrolled nurses of the American Red Cross constituting this reserve.

HOSPITAL TRAIN.

A hospital train, designed in the office of the Surgeon General and consisting of 10 Pullman cars built in the Pullman car shops at Chicago, has been prepared to meet the needs of the Medical Department and is now in operation. Five of the cars are stripped of berths and regular hospital beds have been installed; two large side doors for loading and unloading stretcher cases are provided; two of the cars are regulation sleepers and equipped with extra fans, call bells, medicine cabinets, linen cabinets, extra water and ice tanks, etc., installed for ambulant cases. One car has a complete operating room. The kitchen car is complete and so designed that it can care for over 200 sick.

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[1] Includes 7 for assignment to duty on the hospital train.

In addition to the Regular Army personnel there will be nurses from the Army Nurse Corps to act as ward nurses in certain cars, diet nurses, and two are to be assigned to the operating car.

The train is painted maroon, with the insignia of the Army Medical Department, and with the train number and car number on each car.

This train will operate between the Mexican border, the west coast, Hot Springs, and the East. Such additional trains as may be necessary to meet the needs of the service will be provided, including a completely equipped bath and disinfecting train for use, if needed, on the border in connection with any possible appearance of typhus fever among troops.

EXPEDITION INTO MEXICO.

In March, 1916, an expeditionary force, consisting of United States troops of all branches, crossed the Rio Grande and entered northern Mexico. This force during most of the time has consisted of from 8,000 to 12,000 men (a monthly average of about 10,000). During an experience covering several months of arduous service under the most trying climatic and insanitary conditions this 10,000 has maintained a remarkable record of health and efficiency.

Its noneffective rates compare favorably with the best of the home troops under garrison conditions. The work of the medical officers and the sanitary personnel has been the subject of special commendatory reports by the commanding general of the expedition.

MOBILIZATION OF THE NATIONAL GUARD.

Under the provisions of the national-defense act of June 3, 1916, the State troops of the country were called into the Federal service in June, 1916, by an order of the President.

The National Guard of the United States, comprising a force consisting of approximately 135,000 officers and enlisted men of various branches, was rapidly mobilized in their respective State camps Here they were subjected to a rigid physical examination, when tim allowed, conforming to that required in the regular service; inspected mustered, and equipped under the direct supervision of officers o the United States Army specially detailed for that duty. As rapidl as possible these soldiers from civil life were transferred to the larg concentration and training camps in the Southern Department an stationed in close proximity to the troops of the Regular Army some 40,000 of which had been occupying the border district adjacen to the Rio Grande for several years. This sudden and rapid movement of a large body of partially trained or quite inexperience troops threw an enormous amount of work and responsibility o those charged with its execution, and particularly upon the staff an supply departments of the Army.

To the officers of the Medical Corps of the Army was given th task of making the physical examinations and administering the vaccination against typhoid fever and smallpox, immediately compu sory on entering the Federal service under the existing regulation Their assignment to the different camps as sanitary inspectors an instructors added further to their important duties.

It can be fairly stated that this mobilization has been accomplishe with promptness and with the minimum of disease and discomfor

In view of the general situation and the suddenness of the call there is little ground for complaint of any kind, and particularly from the standpoint of hygiene and sanitation. A comparison with a somewhat similar mobilization of citizen soldiers in the summer of 1898 and its results shows clearly the advance that has been made in the knowledge of preventive medicine and camp sanitation in the Army since the days of the Spanish-American War.

From the weekly telegraphic reports of "sick and wounded" for the combined forces on the southern border the sick rate since mobilization has been less than 2 per cent, which, expressed in terms of noneffectiveness, is equivalent to a rate of 18.13 per thousand.

The mobilization of the National Guard in 1916 offered a unique and valuable opportunity for instruction to the members of both the National Guard and the Regular Army. The medical officers of both branches have rendered excellent service, and the exceptionally low sick rates that have prevailed during the first few months in the combined camps of the border speak in the highest praise of their ability and efficiency.

HEALTH OF THE ARMY.

INTERNATIONAL NOMENCLATURE.

The diagnostic terms for diseases and injuries, adopted by the Medical Department in accordance with the International Nomenclature, are used with the international numbers for the fourth year in this report.

The International Nomenclature is used by most of the important foreign countries. It is also used by the Census Bureau in this country and by an increasing number of boards of health and large hospitals.

In studying statistics for other countries where the terms used are expressed in a foreign language, the international number furnishes a ready key for their interpretation.

Following Table No. 81 will be found the 10 tables giving the military statistics for the year 1915, as agreed upon at the International Commission for the Unification of the Medical Statistics of Armies, held at Budapest in 1894, at Madrid in 1903, and modified by the last meeting held at Berlin in 1907. The diagnostic terms and numbers used in these tables are those agreed upon by the commission, and are not to be confused with the terms and numbers of the international nomenclature used in the remainder of this report and based upon the second decennial revision by the international commission held in Paris, July 1 to 3, 1909.

As in 1912, 1913, and 1914, only original admissions are used in compiling the statistics in this report. In the years 1904 to 1911, inclusive (reports 1905–1912), the readmissions were counted as admissions. In this report in making comparisons between cases and admissions, the terms case admission (reports 1913–1916, inclusive, and prior to the one for 1905) and total admission (reports 1905–1912, inclusive), will be used.

ADMISSION RATES.

Table No. 81 shows the total admission and case admission rates for American troops of the Army, for the United States, continental (exclusive of Alaska), and for American troops in the Philippine Islands, for diseases, external causes, and all causes separately for each year 1904 to 1911, inclusive.

Table No. 68½ gives the rates per 1,000 for the entire Army. So much interest has been shown concerning the incidence of certain diseases, especially tuberculosis, typhoid fever, and venereal diseases, for the entire Army—that is, for all officers and enlisted men, both American and native troops—that it was deemed advisable to publish this data to include all troops together. The rates for American troops, enlisted men, placed in comparison for ready reference, may be found in Tables Nos. 69 and 76.

OFFICERS.

The mean strength of officers was 4,394, as obtained from the reports of sick and wounded of the Medical Department, and 4,873, from the office of The Adjutant General. There were 2,430 admissions, 18 deaths, and 103.58 constantly noneffective from all causes, equal to ratios of 553.03, 3.69, and 23.57 as compared with ratios of 495.76, 4.76, and 23.12 per 1,000 for the year 1914. The constantly noneffective rate was higher than for 1914; the admission also was higher.

The chief causes of admission and their rates were: Influenza, 60.54; bronchitis, 42.33; diarrhea and enteritis, 39.14; diseases of the pharynx, 31.63; diseases of the nasal fossae, 29.59, and dengue, 20.94.

OFFICERS RETIRED.

Eighteen officers were retired on account of disability during the year, making a rate for retirement for disability of 3.69 per 1,000 as compared with 6.22 per 1,000 for 1914. The discharge rate for disability in enlisted men (all) was 14.06, as compared with 12.78 per 1,000 for 1914.

The following table shows the principal causes for which retirements were made and the rank and age of the officers retired:

TABLE NO. 1.—*Retirement of officers, United States Army, year 1915, for disability, by causes and rank, grouped by ages.*

	Total.		Ages of officers, quinquennial groups.								
	Number.	Ratio per 1,000 of all officers.	24 years and under.	25 to 29 years.	30 to 34 years.	35 to 39 years.	40 to 44 years.	45 to 49 years.	50 to 54 years.	55 to 59 years.	60 years and over.
CAUSES OF RETIREMENT.											
Neurasthenia	4	0.82	......	......	......	1	......	1	2	......	......
Bright's disease	3	.62	......	......	......	......	1	......	......	2	......
Organic heart disease	2	.41	......	......	1	......	......	......	......	1	......
Fractures, results of	2	.41	......	1	......	......	1	......	......	......	......
Diabetes	1	.21	......	......	......	......	......	......	1	......	......
Myelitis	1	.21	......	......	......	......	......	......	1	......	......
Epilepsy	1	.21	......	......	......	......	......	1	......	......	......
Deafness and otitis media	1	.21	......	......	......	......	......	......	......	1	......
Penumonia, results of	1	.21	......	......	......	......	1	......	......	......	......
Angiocholitis	1	.21	......	......	......	......	1	......	......	......	......
Flat foot	1	.21	......	......	......	1	......	......	......	......	......
RANK IN SERVICE.											
Colonel	1	.21	......	......	......	......	......	......	......	1	......
Lieutenant colonel	3	.62	......	......	......	......	......	1	2	......	......
Major	4	.82	......	......	......	......	......	1	1	2	......
Captain	8	1.64	......	......	1	1	4	......	1	1	......
First lieutenant	1	.21	......	......	......	1	......	......	......	......	......
Second lieutenant	1	.21	......	1	......	......	......	......	......	......	......
Number of retirements	18	3.69	......	1	1	2	4	2	4	4	......
Number of officers in service	4,873	......	215	996	891	966	859	487	258	149	52
Ratio per 1,000 of each group	......	......	......	1.00	1.12	2.07	4.66	4.11	15.50	26.85	......

There were 18 deaths, with a rate of 3.69 per 1,000, as compared with 23 deaths, with a rate of 4.76 in 1914.

The following table shows the causes of deaths of officers:

TABLE No. 2.—*Deaths of officers, United States Army, year 1915, by causes and rank, grouped by ages.*

	Total.		Ages of officers, quinquennial groups.								
	Number.	Ratio per 1,000 of all officers.	24 years and under.	25 to 29 years.	30 to 34 years.	35 to 39 years.	40 to 44 years.	45 to 49 years.	50 to 54 years.	55 to 59 years.	60 years and over.
CAUSES OF DEATH.											
By crushing (2 by fall of aeroplane, 1 by overturning auto, 1 by fall from horse in polo game)	4	0.82		1	2		1				
By suicide (2 by gunshot, 1 by hanging)	3	.62	1				1	1			
Organic heart disease (1 valvular, 1 hypertrophy and dilatation)	2	.41			1			1			
Pneumonia	2	.41				2					
Pancreas, disease of the	2	.41					1			1	
Septicemia	1	.21									1
Carcinoma	1	.21						1			
Apoplexy, cerebral	1	.21					1				
Ulcer of stomach	1	.21						1			
Causes unknown	1	.21		1							
RANK IN SERVICE.											
Colonel	1	.21									1
Lieutenants colonel	2	.41						1		1	
Majors	4	.82				1		3			
Captains	5	1.03				1	4				
First lieutenants	4	.82		1	3						
Second lieutenants	2	.41	1	1							
Number of deaths	18	3.69	1	2	3	2	4	4		1	1
Number of officers in service	4,873		215	996	891	966	859	487	258	149	52
Death rate per 1,000 of each group			4.65	2.01	3.37	2.07	4.66	8.21		6.71	19.23

ENLISTED MEN.

The mean enlisted strength of the Army, American troops, white and colored, for the year 1915, as reported on the monthly sick reports of the Medical Department, was 93,262, and on the returns of The Adjutant General's Office, 94,729. The former represents the strength of the commands from which the sick returns were made and was used in calculating all ratios except those for deaths and discharges. As all deaths and discharges were reported, even of those absent from a command, the total strength as obtained from The Adjutant General was used in calculating ratios pertaining to those headings. There was an increase in strength over the year 1914, for which the medical returns showed 87,228 and The Adjutant General's Office, 88,133.

During the year 1915 American troops were stationed in the United States proper, the Philippine Islands, China, Alaska, Hawaii, and the Canal Zone. Native troops served in Porto Rico and the Philippine Islands. Statistics for the native troops, Porto Ricans and the Philippine Scouts, have been separately compiled, and when reference is made to the "Army" in this report the entire Army—officers, white, colored, and native enlisted men—is meant.

The size of garrisons in the Tropics, which constituted such a large percentage of our military forces, renders of more importance than formerly the general rates for the entire Army.

Charts A, B, C, D, E, F, and G are for the entire Army for the decade 1906–1915. For years prior to 1906 the same data as shown in these charts will be found published in the report for 1912, pages 14, 15, and 16.

Table No. 76 gives American troops, enlisted men by countries, placed in comparison for 1915.

The admission and noneffective rates for the entire Army and for the troops in geographical divisions are readily comparable in the following tabulation:

Admission and noneffective rates for entire Army and for troops in geographical divisions for years 1915 and 1914.

	Army (entire).	American troops of the Army (enlisted men).	Enlisted men serving in geographical divisions.							
			United States (at home).	Alaska.	Canal Zone.	Hawaii.	Philippine Islands.		China.	Porto Rico.
							American troops.	Native troops.		
Admission rates:										
1915	726.19	744.59	704.01	386.63	871.00	568.94	990.45	573.84	1,462.17	555.07
1914	660.45	665.83	629.84	422.95	955.22	523.27	877.69	714.14	1,080.23	629.30
Noneffective rates:										
1915	25.22	25.88	25.74	8.91	26.00	20.44	29.15	15.68	35.00	22.78
1914	23.78	24.02	23.37	10.52	37.30	18.75	30.58	20.30	29.68	22.52

The rates are slightly higher this year for the United States, Hawaii, China, and for the American troops in the Philippine Islands. A decided reduction in admission and noneffective rates occurred in Alaska, Canal Zone, and the Philippine Islands (native troops). The most marked reduction is noted in the admission rate for the Philippine Scouts and in the noneffective rate for the troops serving in Canal Zone.

ADMISSIONS TO SICK REPORT (AMERICAN TROOPS, ENLISTED MEN).

[See Tables Nos. 69 and 76.]

The admissions to sick report during the year 1915 show a slight increase, being 744.59 as compared with 665.83 in 1914. The admission rate for disease only is 610.32; in 1914 it was 539.46. Table No. 81 shows the case admission and total admission rates for all American troops, those in the United States and those in the Philippine Islands, 1904 to 1911, inclusive. The diseases causing the highest admission rates were: Venereal, 107.71; diseases of the pharynx, 65.10; bronchitis, 35.17; influenza, 34.27; and diarrhea and enteritis, 31.51. The rates just given are for the American enlisted men of the Army and are given first for convenience of comparison. For the entire Army (all officers and enlisted men, including native troops) the rate is 726.19. For disease only the rate is 597.02. The rate for disease this year is slightly higher both among the American troops and for the entire Army. This is probably accounted for by the increased rates for venereal diseases.

For venereal diseases the rate for white troops was 105.81, a decrease over 1914; for colored, 136.30, which was slightly higher than for 1914. The rates in the Philippines for these troops were 177.08 and 258.76, respectively, which are higher for both races over the rates of 1914 in the Philippines, 174.79 and 233.76, respectively. These high rates are undoubtedly due to social conditions and indicate the necessity for a change of conditions before rates comparable to those obtaining in the United States may be expected. As the rate for 1912 for colored troops in the Philippines was 524.06, the highest recorded in the Army, the present rate is an index of the effectiveness of the measures instituted for improvement in this condition.

The case admission rate for external causes, American troops, enlisted men, was 134.27. In 1914 this rate was 126.37, and in 1913, 136.52. The principal causes for this rate were: Traumatism by fall, 36.16; injuries by animals, 12.33; traumatism by cutting or other piercing instruments, 10.57; traumatism by crushing, 6.66; burns, 4.12; and poisoning by food, 3.44.

NONEFFECTIVE RATES.

Chart B shows for the entire Army the constantly noneffective rate for all causes from the year 1906 to 1915, inclusive. This rate is the true measure of nonefficiency of the Army from sickness and injury. The rate for disease and injury obtained for the total American troops, enlisted men, for the year 1915 was 25.88, as compared with 24.02 for 1914 and 24.33 per 1,000 in 1913. The rate for 1914 is the lowest recorded noneffective rate in the history of the Army. The highest noneffective rate on record was for the year 1898, when the total rate was 82.83 per 1,000, and the rate for diseases alone was 69.09.

The noneffective rate for all troops in the military service, or the entire Army, from all causes, was 25.22 (for disease alone, 20.85), which is slightly higher than that for 1914, but still much below the rates for any preceding year, except 1914, when the rate was 23.78. This rate during the past decade shows a steady reduction. In 1906 the noneffective rate was 47.86.

DISCHARGES FOR DISABILITY.

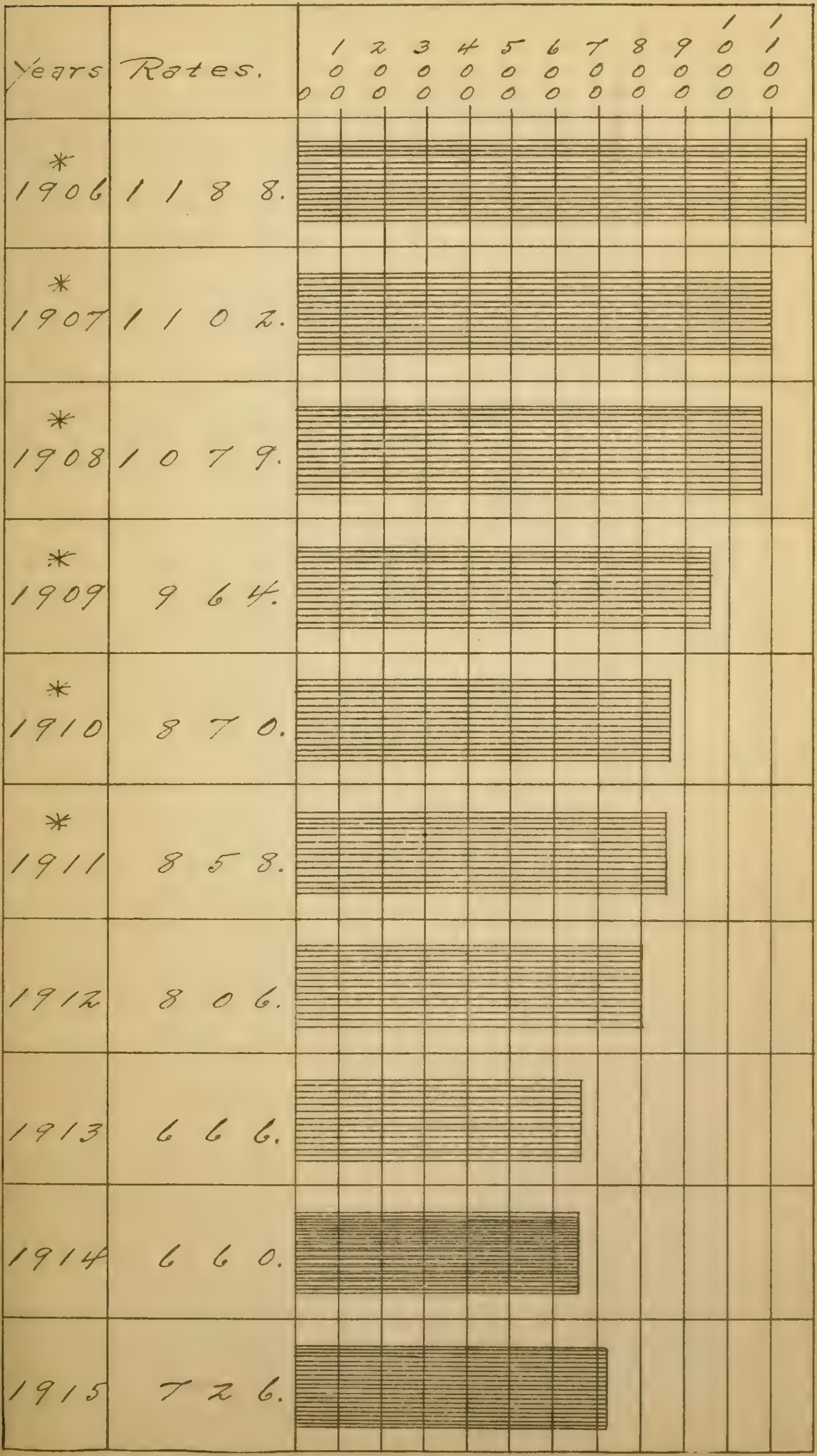
Chart D gives the rates for discharges for disability for the Army from the year 1906 to 1915, inclusive.

Soldiers stationed outside of the territorial limits of the United States are brought to the United States for discharge, except those belonging to the Porto Rican Regiment and the Philippine Scouts. They are, however, credited in the tabulated reports to the country in which the soldiers were serving when they became disabled, if their commands were there at date of discharge.

The present system requires that all soldiers certified by medical officers to be permanently incapacitated for the military service shall be critically examined by a board of two medical officers before being

Chart A.—Army- Officers and American and native troops.

[Admission rates, all causes, years 1906–1915.]



* Excess of cases deducted to correspond with years preceding 1906, and 1912 to 1915.

Chart B.—Army. Officers and American and native troops.

[Noneffective rates, all causes, years 1906-1915.]

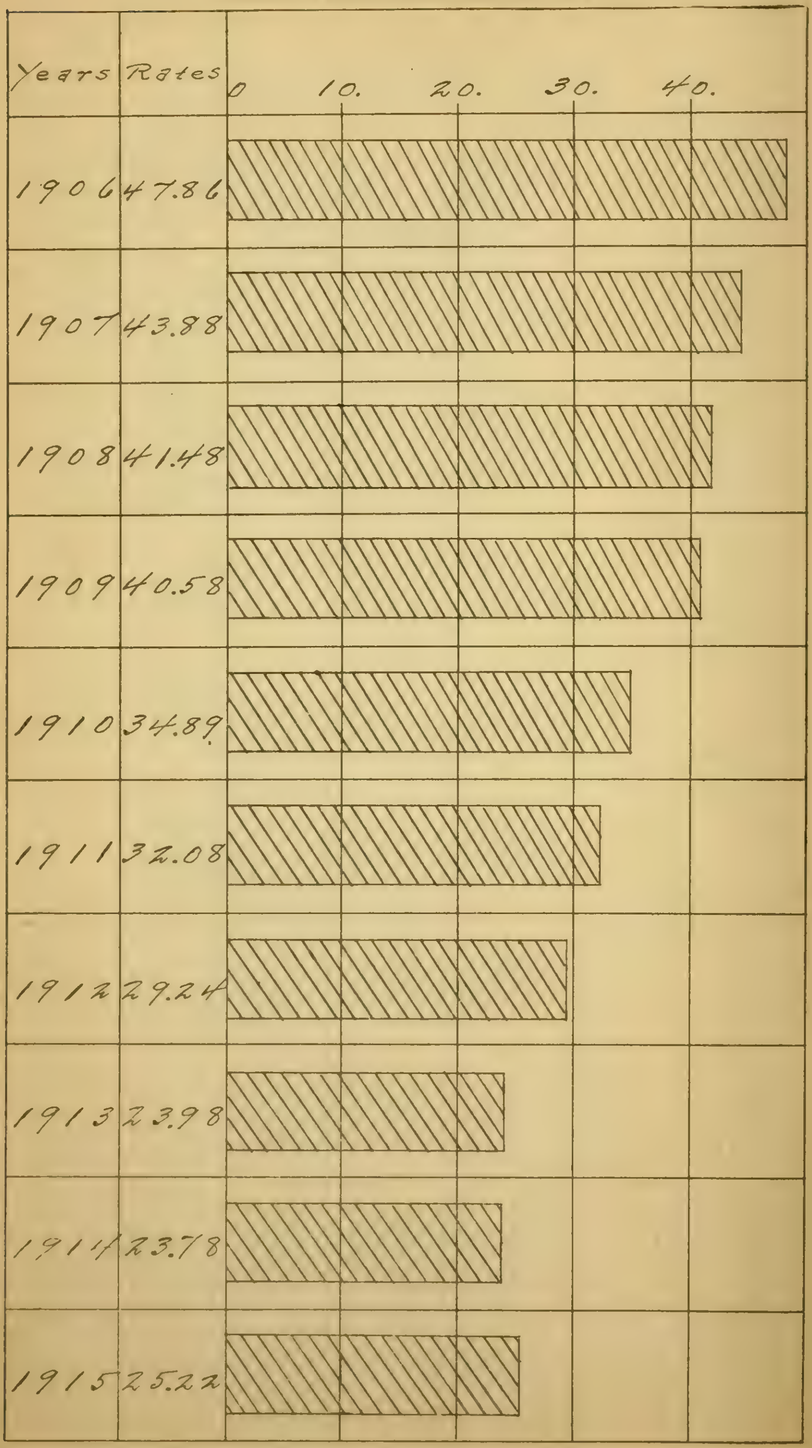
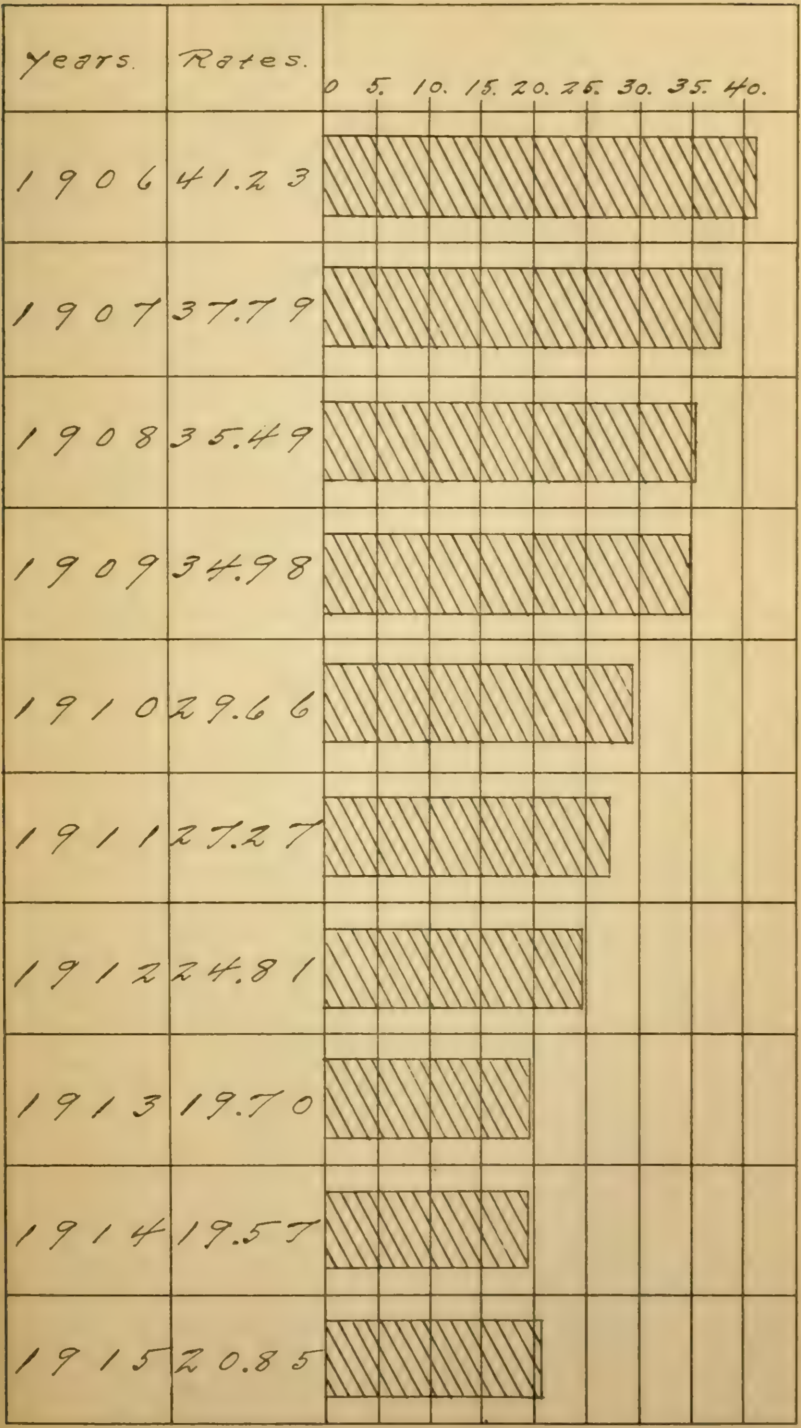


Chart C.—Army. Officers and American and native troops.

[Noneffective rates for disease, years 1906–1915.]



Years.	Rates.
1906	41.23
1907	37.79
1908	35.49
1909	34.98
1910	29.66
1911	27.27
1912	24.81
1913	19.70
1914	19.57
1915	20.85

discharged. The reports of these boards go to the department headquarters from where discharges are ordered, except in the cases of soldiers at a recruit depot or general hospital, and the reports of boards on insane patients. In the latter circumstances the reports are sent to the Adjutant General of the Army, who directs the discharge or issues the order when insane are recommended to be transferred to the Government Hospital for the Insane, Washington, D. C.

The discharge rate for 1914 was lower than for any year since the Spanish-American War, being 12.99 as compared with 14.26 for the year 1915. In 1915 there were in the Army 1,351 men, American troops, discharged for disability, as compared with 1,145 during 1914. The corresponding rate for 1913 was 13.24. The rate for 1867 was 13 per 1,000, and the lowest rate from 1894–1898, inclusive, was that for 1895, the lowest on record in the Army, 9.15 per 1,000. The highest rate in any year for discharge for disability was in 1849, when the total rate for discharge was 76.7 per 1,000. The rate for the entire Army was 14.06 per 1,000.

The discharge rate for disease in 1915 (American troops) was 12.79 per 1,000, as compared with 11.39 in 1914, and that for external causes was 1.47 in 1915 as compared with 1.60 in 1914. The diseases causing the highest discharge rate in 1915 were as follows, absolute numbers and rates per 1,000 being given:

Discharges, enlisted men (American troops), year 1915.

Disease.	Number.	Ratio.
Mental alienation	313	3.30
Tuberculosis (all)	170	1.79
Flat foot	118	1.25
Venereal disease	78	.82
Epilepsy	65	.69
Organic heart disease	47	.50

DEATHS FROM ALL CAUSES.

Chart E shows the total death rate for all causes for the Army from the year 1906 to 1915, inclusive. (See also Table 3A.)

For American troops, enlisted, the total rate for 1915 was 4.60 as compared with the corresponding rate of 4.45 for 1914 and 4.86 for 1913. The rate for 1915 is but little above the rate for 1914, which was the lowest on record in the Army. The highest death rate occurring in any year was in 1849, when the total rate for deaths was 80.2. The death rate for diseases was 2.60 in 1915: 2.36 in 1914, and 2.57 in 1913. The total number of deaths in 1915 was 436. The following diseases caused the highest number of deaths, absolute numbers and rates per 1,000 being given:

Deaths, enlisted men (American troops), year 1915.

Disease.	Number.	Ratio.
Tuberculosis	31	0.33
Pneumonia (lobar)	29	.31
Organic heart disease	22	.23
Measles	22	.23
Appendicitis	12	.13
Epidemic cerebrospinal meningitis	10	.11

The following were the principal causes of deaths, among officers and enlisted men, American troops, from external causes, with the number in each instance: Suicides, 53; homicides, 21; drowning, accidental, 34; traumatism by fall, 9; traumatism by other crushing, 29; traumatism by firearms, 12.

INFLUENCE OF STATION ON TROOPS.

Regarding the comparative healthfulness of the various countries in which American troops were serving during the year (Army transports being excluded), it will be noted that Alaska maintains the lowest admission and noneffective rates, 386.63 and 8.91 per 1,000, respectively; the Canal Zone the lowest death rate, 2.37 per 1,000; China had the lowest discharge rate, 9.74; China also had the highest noneffective rate, 35.00, as well as the highest admission rate, 1,462.17 per 1,000; the Philippine Islands the highest discharge rate, and the United States the highest death rate.

Chart D.—Army. Officers and American and native troops.

[Discharge rates, all causes, years, 1906–1915.]

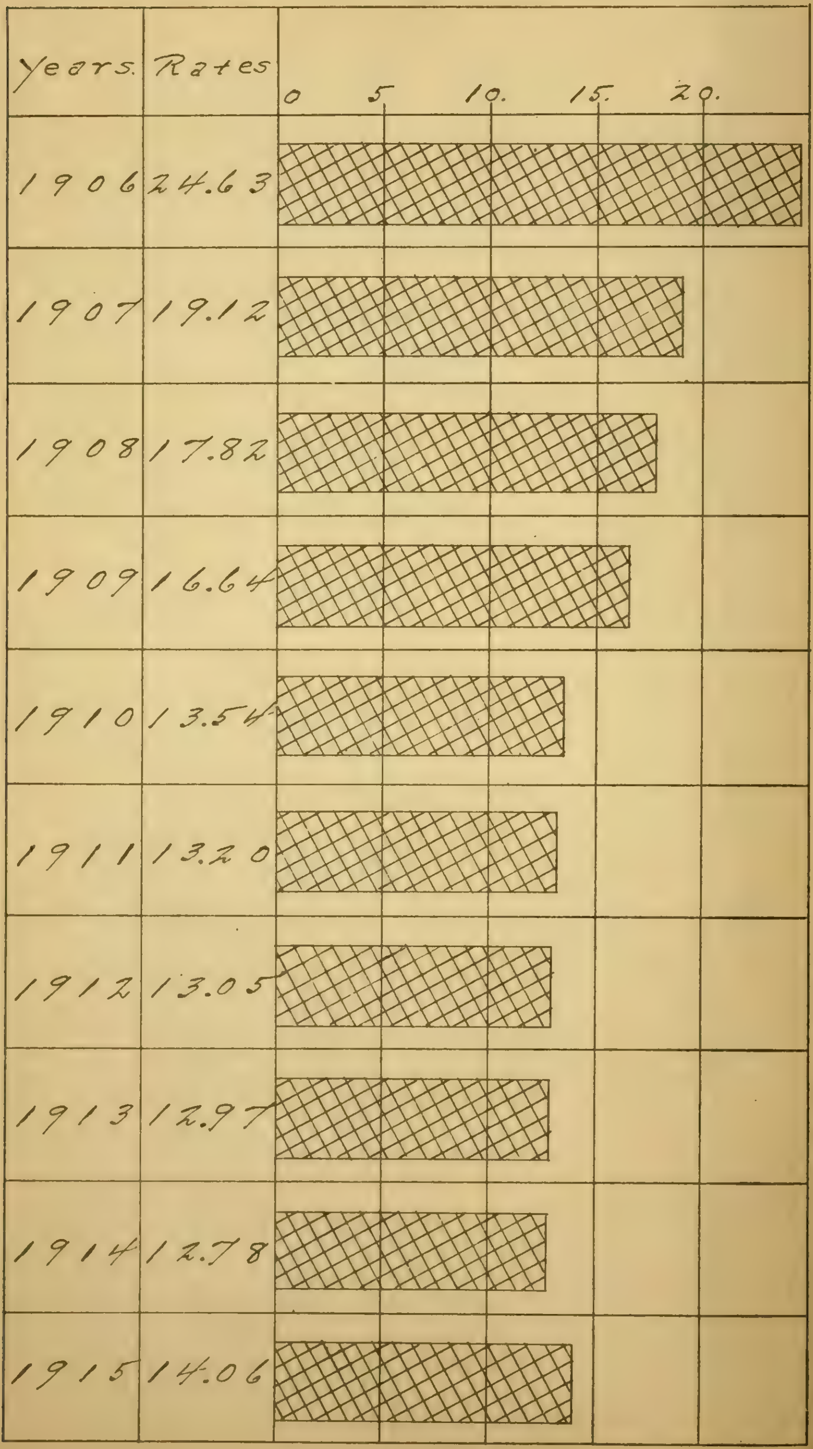


Chart E.—Army. Officers and American and native troops.

[Death rates, all causes, years 1906–1915.]

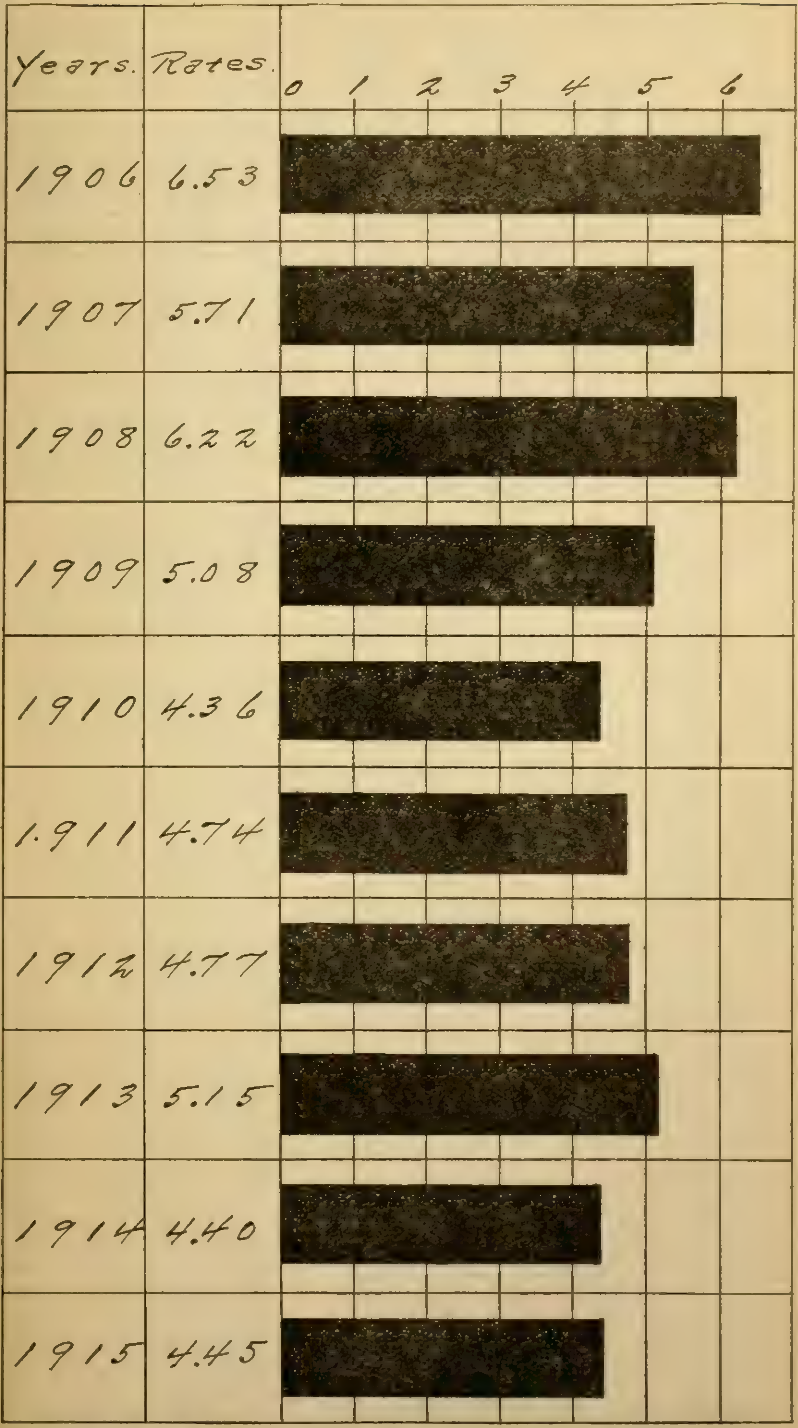
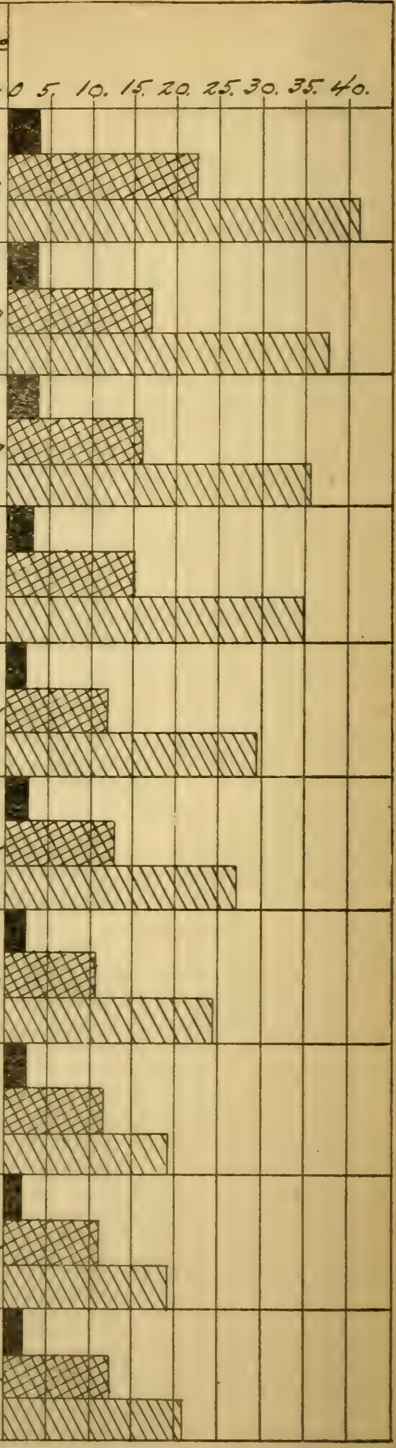


Chart F.—Army. Officers and American and native troops.

[Death, discharge, and noneffective rates for disease, years 1906–1915.]

Years.	Death Rates.	Discharge Rates.	Non-effective Rates.
1906	3.77	22.24	41.23
1907	3.57	16.98	37.79
1908	3.63	15.99	35.49
1909	3.28	15.05	34.98
1910	2.50	12.06	29.66
1911	2.67	12.81	27.27
1912	2.49	10.78	24.81
1913	2.60	11.70	19.70
1914	2.35	11.23	19.57
1915	2.53	12.63	20.85

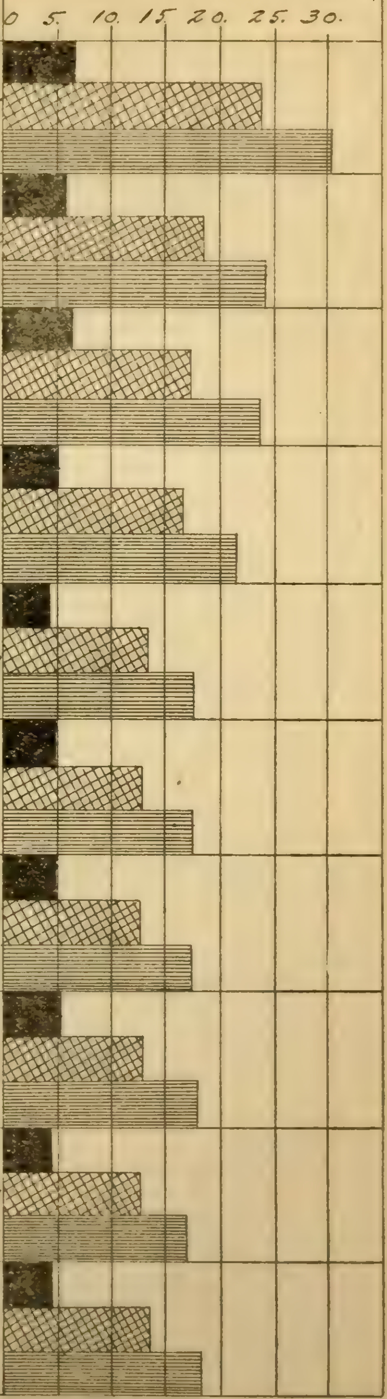


Deaths ■ Discharges ▦ Noneffective ▧

Chart G.—Army. Officers and American and native troops.

[Total losses, all causes, years 1906–1915.]

Years.	Death Rates.	Retired and Discharge Rates.	Total Losses.
1906	6.53	23.84	30.37
1907	5.71	18.53	24.24
1908	6.22	17.56	23.78
1909	5.08	16.40	21.48
1910	4.36	13.25	17.61
1911	4.74	12.84	17.58
1912	4.77	12.61	17.38
1913	5.15	12.68	17.83
1914	4.40	12.46	16.86
1915	4.45	13.58	18.03



Deaths ■ Retired and Discharged ▩ Total Losses ▤

Chart H.—Army. Officers and American and native troops.

[Admission, discharge, death, and noneffective rates for disease, by countries, year 1915.

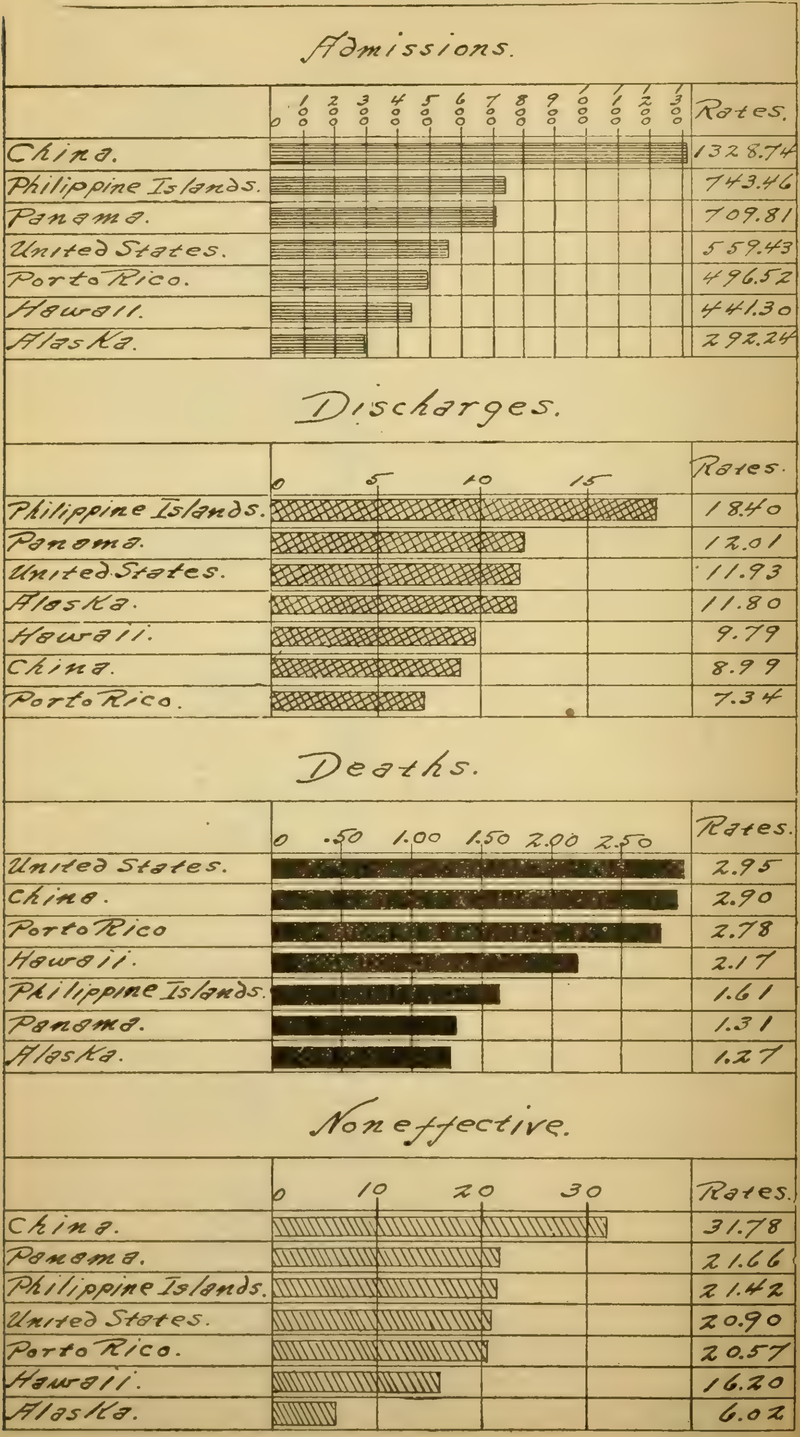


TABLE No. 3.—*Numerical view of the effect of disease and injury on United States troops at home and abroad in the year 1915, compared with corresponding data for the year 1914, by countries (enlisted men only).*

ABSOLUTE NUMBERS.

American troops (enlisted men).	Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
		Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
United States 1915	63,725	44,863	35,972	8,891	879	771	108	349	193	156	1,228	964	264	598,677	1,640.21
1914	61,362	38,648	30,609	8,039	917	794	123	298	156	142	1,215	950	265	523,307	1,433.72
Alaska 1915	763	295	227	68	9	9	....	2	1	1	11	10	1	2,482	6.80
1914	915	387	288	99	8	7	1	8	3	5	16	10	6	3,515	9.63
Philippine Islands 1915	11,834	11,721	10,308	1,413	276	262	14	34	18	16	310	280	30	125,910	344.96
1914	10,253	8,999	7,655	1,344	112	108	4	40	21	19	152	129	23	114,455	313.58
China 1915	1,335	1,952	1,802	150	13	12	1	6	4	2	19	16	3	17,054	46.72
1914	1,047	1,131	1,012	119	4	4	....	6	5	1	10	9	1	11,344	31.08
Hawaii 1915	8,572	4,877	3,779	1,098	97	87	10	27	20	7	124	107	17	63,939	175.17
1914	7,971	4,171	3,204	967	72	63	9	13	9	4	85	72	13	54,544	149.44
Canal Zone 1915	5,721	4,983	4,114	869	77	71	6	14	7	7	91	78	13	54,290	148.74
1914	2,010	1,920	1,678	242	23	19	4	7	1	6	30	20	10	27,367	74.98
Army transports 1915	1,312	751	718	33	....	....	....	4	3	1	4	3	1	18,471	50.61
1914	1,404	681	656	25	1	1	....	6	6	....	7	7	....	13,761	37.70
Total 1915	93,262	69,442	56,920	12,522	1,351	1,212	139	436	246	190	1,787	1,458	329	880,823	2,413.21
1914	87,228	58,079	47,056	11,023	1,145	1,004	141	392	208	184	1,537	1,212	325	764,883	2,095.57
Regular Army, American troops from 1905 to 1914	69,741	680,899	554,775	126,124	11,926	10,669	1,257	3,667	2,025	1,642	15,593	12,694	2,899	9,261,927	2,536.12
Porto Rican troops 1915	681	378	340	38	5	5	....	3	2	1	8	7	1	5,662	15.51
1914	669	421	367	54	6	6	....	3	....	3	9	6	3	5,499	15.07
Philippine Scouts 1915	5,505	3,159	2,657	502	63	58	5	14	9	5	77	67	10	31,506	86.31
1914	5,020	3,585	3,104	481	48	44	4	16	11	5	64	55	9	37,189	101.89

TABLE No. 3.—*Numerical view of the effect of disease and injury on United States troops at home and abroad in the year 1915, compared with corresponding data for the year 1914, by countries (enlisted men only)*—Continued.

PROPORTIONATE NUMBERS (ENLISTED MEN ONLY).

[Ratio per 1,000 of mean strength.]

American troops (enlisted men.)	Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Constantly noneffective.	Days treated.	
		Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
United States 1915	63,725	704.01	564.49	139.52	13.60	11.93	1.67	5.40	2.99	2.41	19.00	14.92	4.08	25.74	9.39	13.34
1914	61,362	629.84	498.83	131.01	14.82	12.83	1.99	4.82	2.52	2.30	19.64	15.35	4.29	23.37	8.53	13.54
Alaska 1915	763	386.63	297.51	89.12	11.80	11.80	....	2.62	1.31	1.31	14.42	13.11	1.31	8.91	3.25	8.41
1914	915	422.95	314.75	108.20	8.74	7.65	1.09	8.74	3.28	5.46	17.48	10.93	6.55	10.52	3.84	9.08
Philippine Islands 1915	11,834	990.45	871.05	119.40	23.22	22.04	1.18	2.86	1.51	1.35	26.08	23.55	2.53	29.15	10.64	10.74
1914	10,253	877.69	746.61	131.08	10.62	10.24	.38	3.79	1.99	1.80	14.41	12.23	2.18	30.58	11.15	12.72
China 1915	1,335	1,462.17	1,349.81	112.36	9.74	8.99	.75	4.49	3.00	1.50	14.23	11.99	2.25	35.00	12.77	8.74
1914	1,047	1,080.23	966.57	113.66	3.82	3.82	....	5.73	4.78	.96	9.55	8.60	.96	29.68	10.83	10.03
Hawaii 1915	8,572	568.94	440.85	128.09	10.92	9.79	1.13	3.04	2.25	.79	13.96	12.04	1.92	20.44	7.46	13.11
1914	7,971	523.27	401.96	121.31	9.02	7.89	1.13	1.63	1.13	.50	10.65	9.02	1.63	18.75	6.84	13.08
Canal Zone 1915	5,721	871.00	719.10	151.90	13.03	12.01	1.02	2.37	1.18	1.18	15.40	13.19	2.20	26.00	9.49	10.89
1914	2,010	955.22	834.83	120.40	10.94	9.04	1.90	3.33	.48	2.85	14.27	9.52	4.75	37.30	13.62	14.25
Army transports 1915	1,312	572.41	547.26	25.15	....	....	....	3.05	2.29	.76	3.05	2.29	.76	38.57	14.08	24.59
1914	1,404	485.04	467.24	17.81	.71	.71	....	4.27	4.27	....	4.98	4.98	....	26.85	9.80	20.21
Total 1915	93,262	744.59	610.32	134.27	14.26	12.79	1.47	4.60	2.60	2.01	18.86	15.39	3.48	25.88	9.44	12.68
1914	87,228	665.83	539.46	126.37	12.99	11.39	1.60	4.45	2.36	2.09	17.44	13.75	3.69	24.02	8.77	13.17
Regular Army, American troops from 1905 to 1914	69,741	976.32	795.47	180.85	16.81	15.04	1.77	5.17	2.85	2.32	21.98	17.89	4.09	36.36	13.28	13.60
Porto Rican troops 1915	681	555.07	499.27	55.80	7.34	7.34	....	4.41	2.94	1.47	11.75	10.28	1.47	22.78	8.31	14.98
1914	669	629.30	548.58	80.72	8.97	8.97	....	4.48	....	4.48	13.45	8.97	4.48	22.52	8.22	13.06
Philippine Scouts 1915	5,505	573.84	482.65	91.19	11.44	10.53	.91	2.54	1.63	.91	13.98	12.16	1.82	15.68	5.72	9.97
1914	5,020	714.14	618.33	95.82	9.56	8.76	.80	3.19	2.19	1.00	12.75	10.95	1.80	20.30	7.41	10.37

TABLE NO. 3A.—*Numerical view of the effect of disease and injury on the Army, serving at home and abroad, in the year 1915, compared with corresponding data for the year 1914, by countries (officers and enlisted men, Porto Ricans and Philippine Scouts).*

PROPORTIONATE NUMBERS (ENTIRE ARMY).

[Ratios per 1,000 of mean strength.]

The Army, officers and enlisted men, including Porto Ricans and Philippine Scouts.		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.		
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Constantly noneffective.	Days treated. Each soldier.	Days treated. Each case.
United States	1915	66,789	696.04	559.43	136.61	13.60	11.93	1.67	5.30	2.95	2.35	18.90	14.88	4.02	25.77	9.41	13.51
	1914	64,357	622.28	493.90	128.38	14.82	12.83	1.99	4.87	2.56	2.31	19.69	15.39	4.30	23.41	8.54	13.73
Alaska	1915	787	378.65	292.24	86.40	11.80	11.80	....	2.54	1.27	1.27	14.34	13.07	1.27	8.71	3.18	8.40
	1914	958	408.14	303.76	104.38	8.74	7.65	1.09	8.35	3.13	5.22	17.09	10.78	6.31	10.17	3.71	9.09
Philippine Islands	1915	18,005	853.65	743.46	110.19	19.49	18.40	1.09	2.77	1.61	1.16	22.26	20.01	2.25	24.72	9.02	10.57
	1914	15,943	818.04	699.36	118.67	10.28	9.76	.51	3.50	2.03	1.47	13.78	11.79	1.98	27.20	9.93	12.14
China	1915	1,378	1,438.32	1,328.74	109.58	9.74	8.99	.75	4.35	2.90	1.45	14.09	11.89	2.20	34.45	12.57	8.74
	1914	1,091	1,063.24	949.58	113.66	3.82	3.82	....	5.50	4.58	.92	9.32	8.40	.92	28.88	10.54	9.92
Hawaii	1915	8,876	568.50	441.30	127.20	10.92	9.79	1.13	3.26	2.17	1.09	14.18	11.96	2.22	20.24	7.39	12.99
	1914	8,268	523.58	402.39	121.19	9.02	7.89	1.13	1.81	1.21	.60	10.83	9.10	1.73	18.69	6.82	13.03
Canal Zone	1915	5,903	859.22	709.81	149.41	13.03	12.01	1.02	2.46	1.31	1.15	15.49	13.32	2.17	25.63	9.35	10.89
	1914	2,076	938.35	818.88	119.46	10.94	9.04	1.90	3.21	.46	2.75	14.15	9.50	4.65	36.45	13.30	14.18
Porto Ricans	1915	719	552.16	496.52	55.63	7.34	7.34	....	4.17	2.78	1.39	11.51	10.12	1.39	22.36	8.16	14.78
	1914	707	615.28	534.65	80.62	8.97	8.97	....	4.24	....	4.24	13.21	8.97	4.24	21.64	7.90	12.84
Transports	1915	1,385	545.85	520.58	25.27	....	....	....	2.89	2.17	.72	2.89	2.17	.72	36.32	13.49	24.71
	1914	1,476	465.45	448.51	16.94	.71	.71	....	4.07	4.07	....	4.78	4.78	....	26.47	9.66	20.76
The Army	1915	103,842	726.19	597.02	129.16	14.06	12.63	1.43	4.45	2.53	1.92	18.51	15.16	3.35	25.22	9.20	12.67
	1914	97,278	660.45	538.09	122.36	12.78	11.23	1.55	4.40	2.35	2.05	17.18	13.58	3.60	23.78	8.68	13.14

INFLUENCE OF ARMS OF SERVICE.

The admission rate for disease was highest for the Field Artillery, being 764.57, while the Ordnance Corps had the lowest, 426.21 per 1,000.

The death rate was highest in the Ordnance Corps, 6.78, and lowest in the Field Artillery, 1.79; the Hospital Corps being next with 2.02 per 1,000.

TABLE NO. 4.—*Influence of disease on enlisted American troops of the Army, by arms of service, for the year 1915.*

	Mean strength.	Admitted.	Discharged on certificate of disability.	Died.	Constantly non-effective.	Ratio per 1,000 of mean strength.			
						Admitted.	Discharged on certificate of disability.	Died.	Constantly non-effective.
Infantry	34,090	22,535	461	75	781.50	661.04	13.31	2.17	22.93
Cavalry	14,408	8,361	149	30	284.04	580.30	10.18	2.05	19.72
Coast Artillery	18,963	10,194	273	49	382.31	537.57	14.17	2.54	20.16
Field Artillery	5,509	4,212	76	10	133.28	764.57	13.60	1.79	24.19
Engineers	1,877	1,282	21	7	57.58	683.00	11.01	3.67	30.68
Ordnance	725	309	1	5	9.69	426.21	1.36	6.78	13.37
Signal Corps	1,364	594	10	5	23.83	435.48	7.21	3.61	17.47
Hospital Corps	3,891	2,135	59	8	74.77	548.70	14.93	2.02	19.22
Others	12,435	7,298	162	57	245.73	586.89	12.83	4.51	19.76
Total	93,262	56,920	1,212	246	1,992.74	610.32	12.79	2.60	21.37

The following table shows the relative frequency of the occurrence of the more important diseases for the various arms of service; figure 1 indicating the highest ratio and figure 8 the lowest in each case for each arm:

TABLE NO. 5.—*Relative frequency of occurrence of certain important diseases, by arms of service, in the Army, among American troops, enlisted men, year 1915.*

Arms of service.	Most important diseases.											
	Venereal.	Tonsilitis and pharyngitis.	Diarrhea and enteritis.	Malaria.	Bronchitis.	Alcoholism.	Rheumatism (articular).	Dysentery.	Tuberculosis.	Typhoid fever.	Pneumonia (lobar).	Injuries.
Infantry	1	2	4	3	2	6	3	7	4	2	3	5
Cavalry	4	3	3	6	3	7	5	4	7	1	2	1
Coast Artillery	6	4	8	5	4	5	2	8	6	......	4	4
Field Artillery	2	1	1	2	1	8	7	3	5	......	1	2
Engineers	3	6	2	1	5	3	6	6	2	......	5	3
Ordnance	8	8	7	8	6	4	4	1	8	......	6	7
Signal Corps	5	7	6	7	8	2	8	5	3	......	......	6
Hospital Corps	7	5	5	4	7	1	1	2	1	......	7	8

Chart I.—United States and Philippine Islands. Officers and American and native troops.

[Noneffective rates for special diseases, year 1915.]

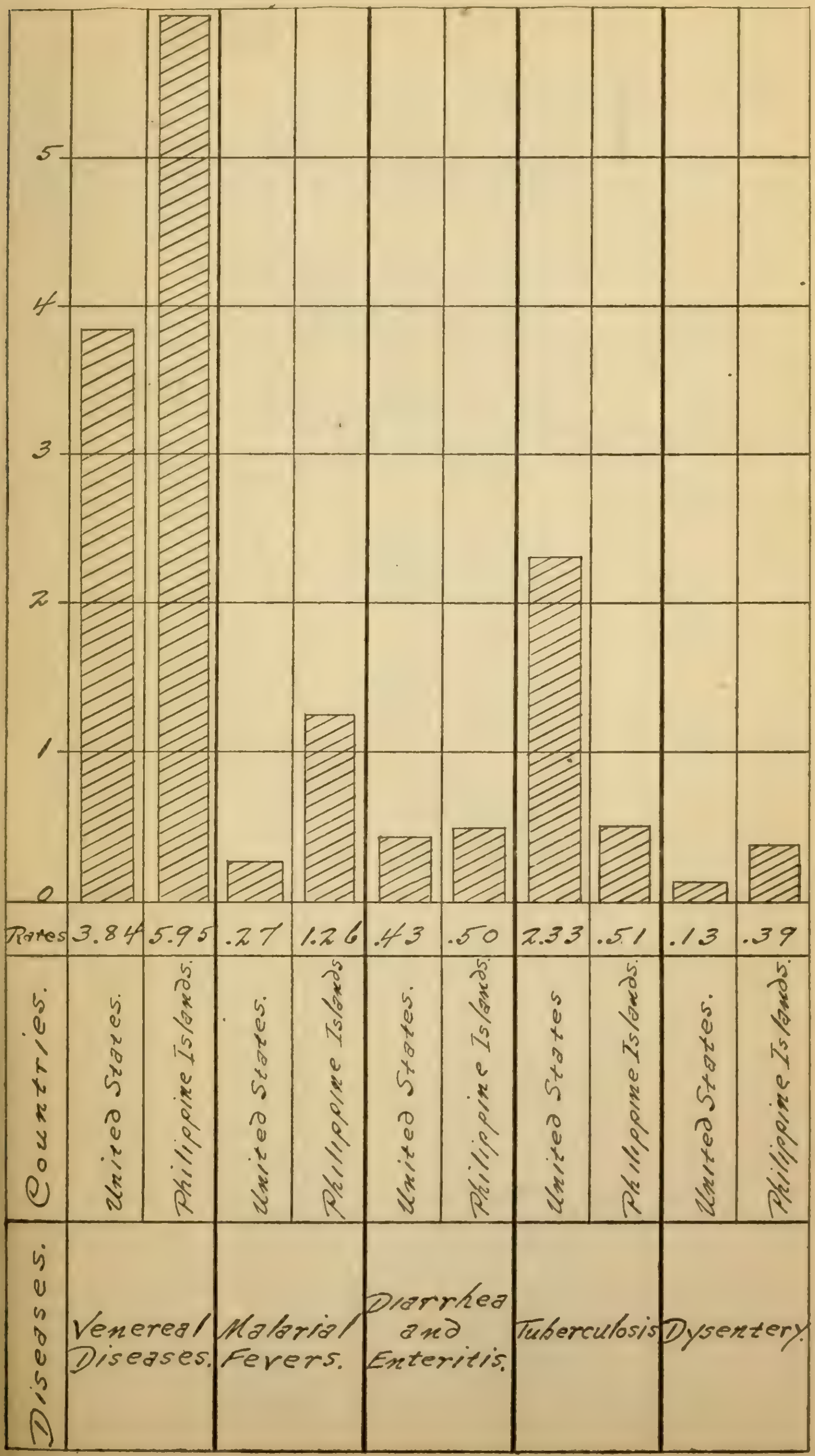


Chart I¹.—Army. Officers and American and native troops.

[Admission rates for malarial fevers, years 1906–1915.]

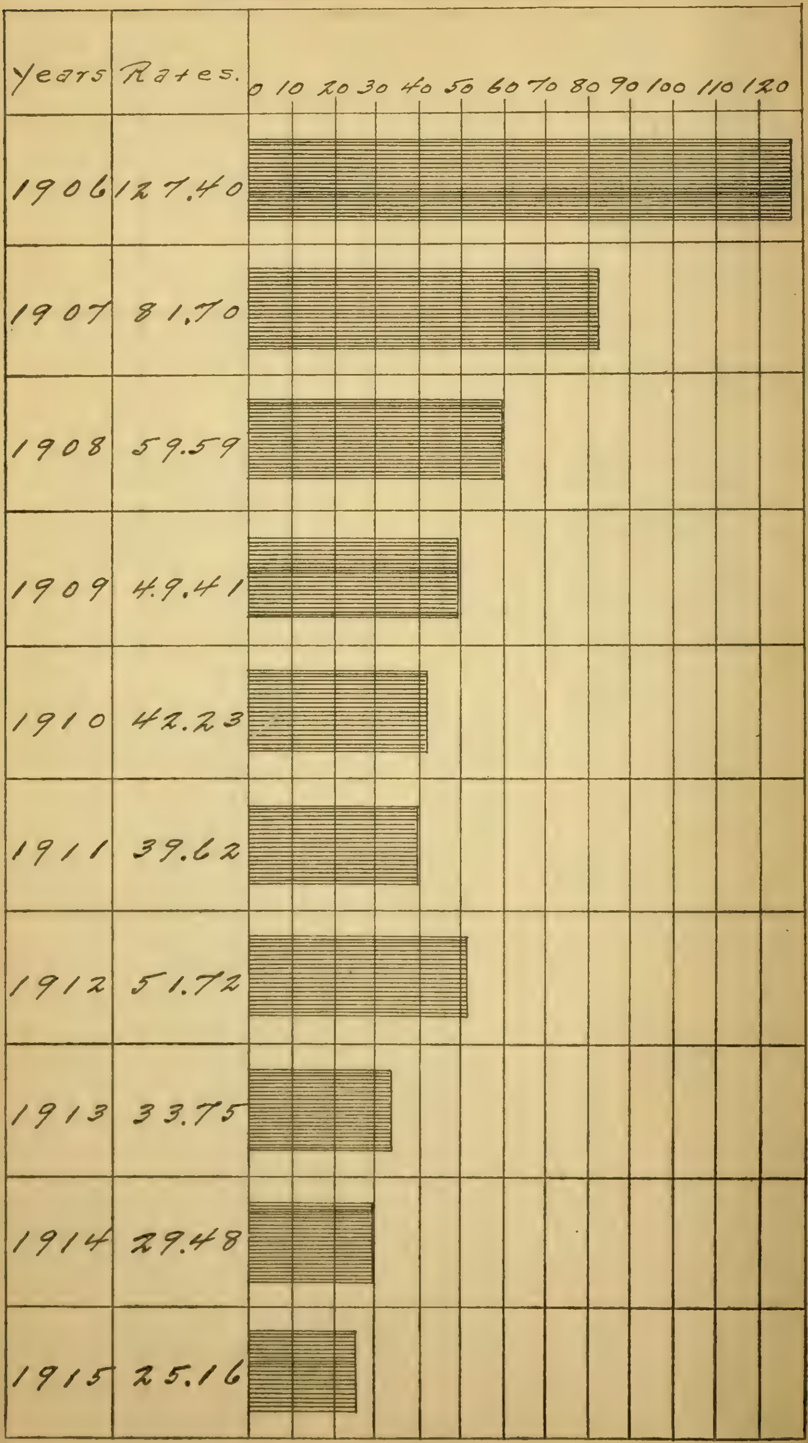
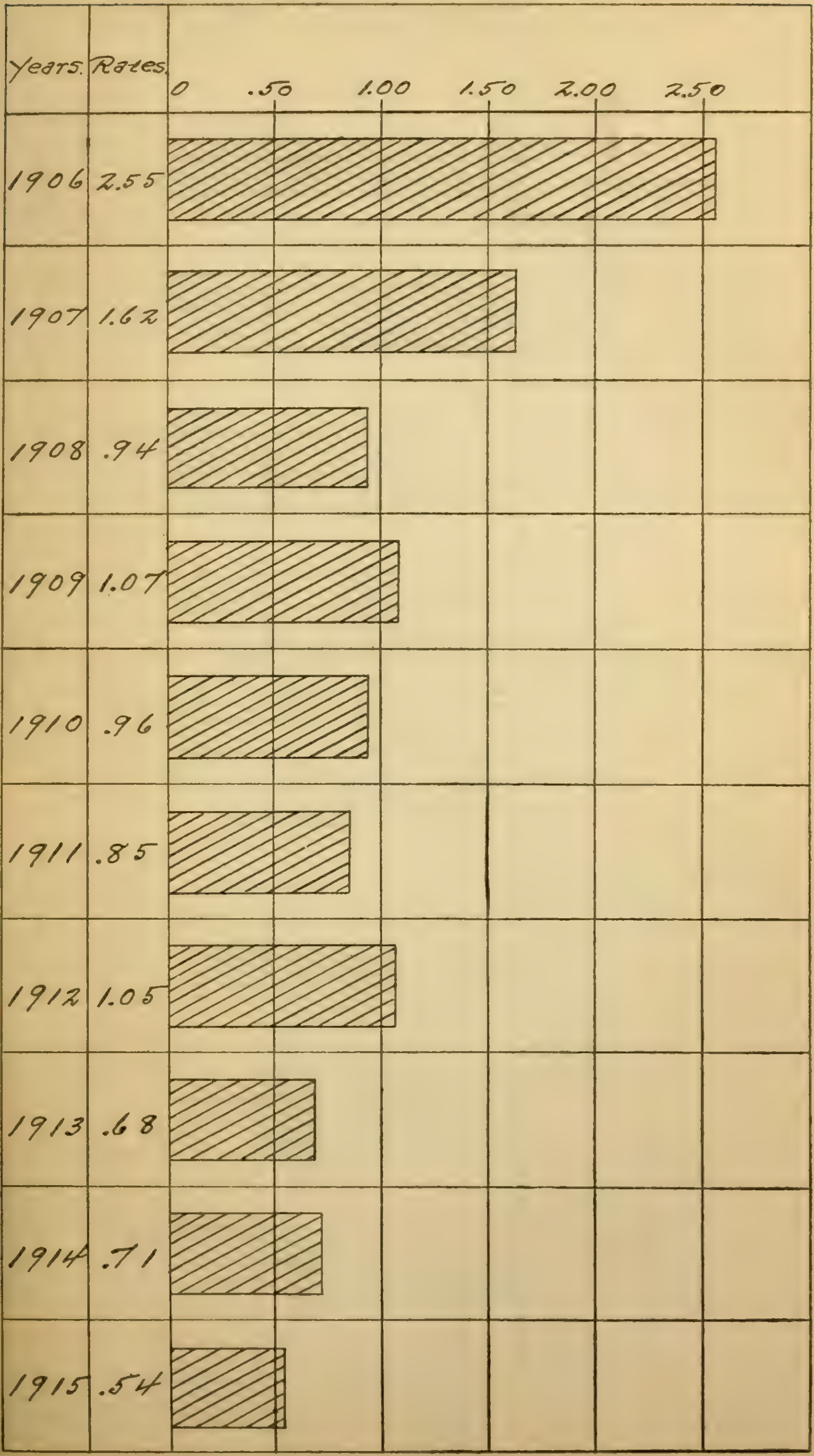
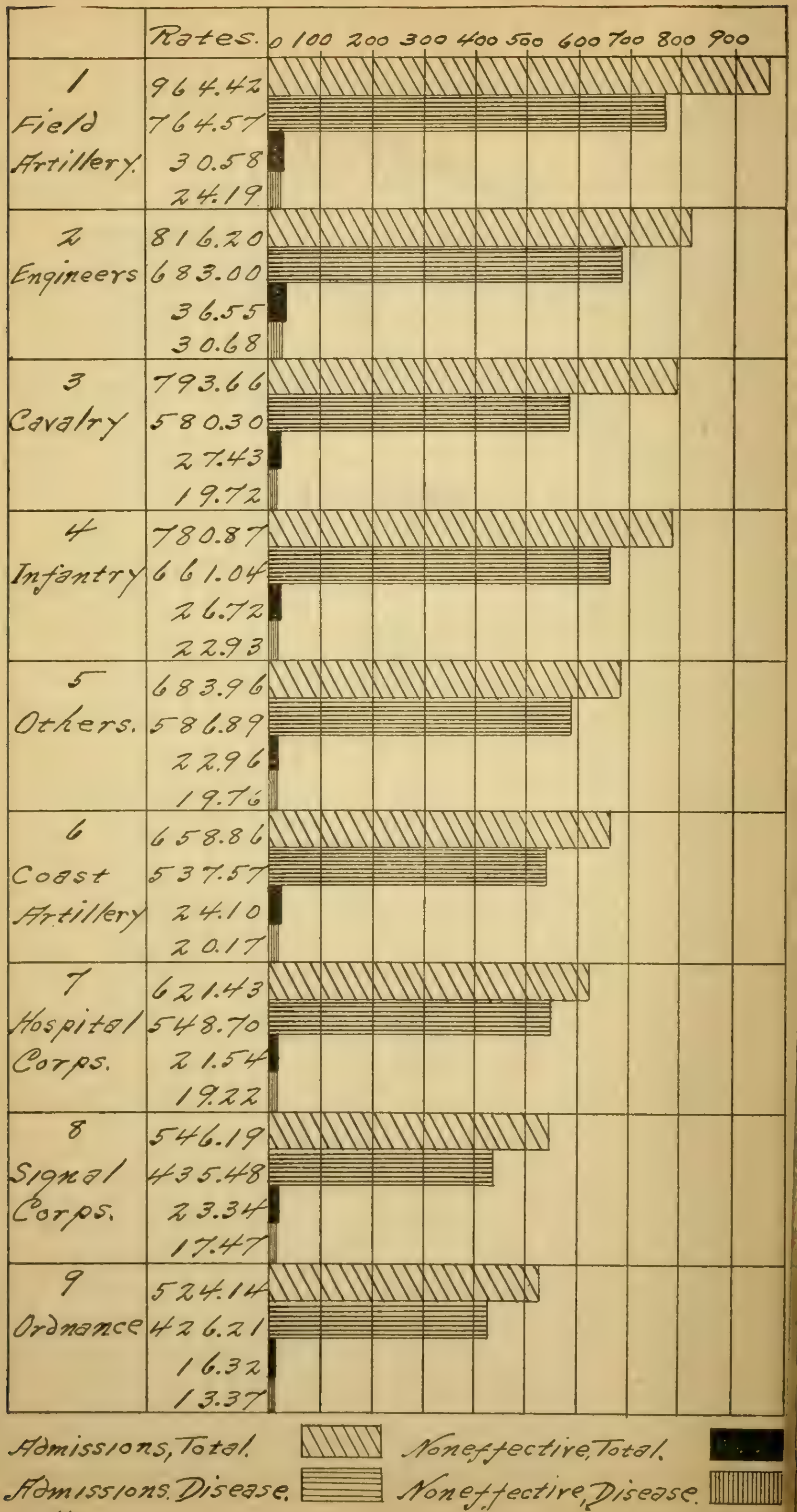


Chart K.—Army. Officers and American and native troops.

[Noneffective rates for malarial fevers, years 1906–1915.]



[Admission and noneffective rates, all causes and disease, by arms of service, year 1915.]



The following tabulation exhibits the admission and noneffective rates for the different races for the principal diseases causing the greatest nonefficiency:

Diseases causing the greatest amount of nonefficiency in the Army, arranged in accordance therewith, together with their admission rates, in ratios per 1,000 of mean strength.

	Army, total enlisted.		White.		Colored.		Porto Ricans.		Philippine Scouts.	
	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.
Venereal diseases	4.62	103.52	4.68	105.81	6.25	136.30	4.82	89.57	1.96	34.33
Tuberculosis	1.72	3.56	1.74	3.44	2.69	4.65	.19	1.47	.58	4.54
Mental alienation	.85	3.74	.89	3.88	1.04	3.27	.28	1.47	.16	2.36
Bronchitis	.62	34.56	.63	35.06	.65	36.87	....	....	.48	28.52
Tonsillitis, acute follicular	.59	42.44	.67	46.48	.34	23.60	.06	2.94	.05	3.09
Appendicitis	.59	8.24	.63	8.84	.65	7.24	....	....	.03	.73
Malaria	.54	25.74	.50	23.60	.17	8.44	.35	8.81	1.54	80.11
Mumps	.46	9.80	.47	10.30	.54	9.82	....	....	.17	3.09
Influenza	.44	32.25	.47	35.06	.31	22.40	.10	2.94	.04	1.63
Diarrhea and enteritis	.41	31.76	.42	31.87	.29	26.19	.23	17.62	.45	37.60
Measles	.40	6.45	.45	7.22	.01	.34	....	....	.07	1.45
Articular rheumatism, acute and chronic	.38	5.52	.41	5.92	.28	4.13	.41	4.41	.03	.54
Hernia	.36	3.59	.38	3.89	.26	2.24	....	....	.08	.73

It will be seen from the above tabulation that the white troops have next to the highest rate for venereal diseases, 105.81 per 1,000; the colored troops the highest, with 136.30, while the native troops (Porto Ricans and Philippine Scouts) had the lowest rate, 89.57 and 34.33, respectively.

INFLUENCE OF RACE.

[See Tables 67 and 75]

Table No. 67 shows that the white troops had the highest admission rate, while the colored troops have the highest death, discharge, and noneffective rates. Porto Rico had the lowest admission and discharge rate, and the Philippine Scouts the lowest death and noneffective rates. The admission rates were: White troops, 745.17; colored, 735.87; Philippine Scouts, 573.84; and Porto Ricans, 555.07.

The constantly noneffective rates were: Colored, 28.46; white, 25.70; Porto Ricans, 22.78; and Philippine Scouts, 15.68 per 1,000.

The discharge rates were: Colored, 15.85; white, 14.16; Philippine Scouts, 11.44; and the Porto Ricans, 7.34 per 1,000.

The death rates were: Colored, 5.51; white, 4.54; Porto Ricans, 4.41; and the Philippine Scouts, 2.54 per 1,000.

The rates for total losses were: Colored, 21.36; white, 18.70; Philippine Scouts, 13.98; and Porto Rican troops, 13.45 per 1,000.

The average number of days lost for each case treated was: Porto Ricans, 14.98; colored, 14.12; white, 12.59; and Philippine Scouts, 9.97 per 1,000.

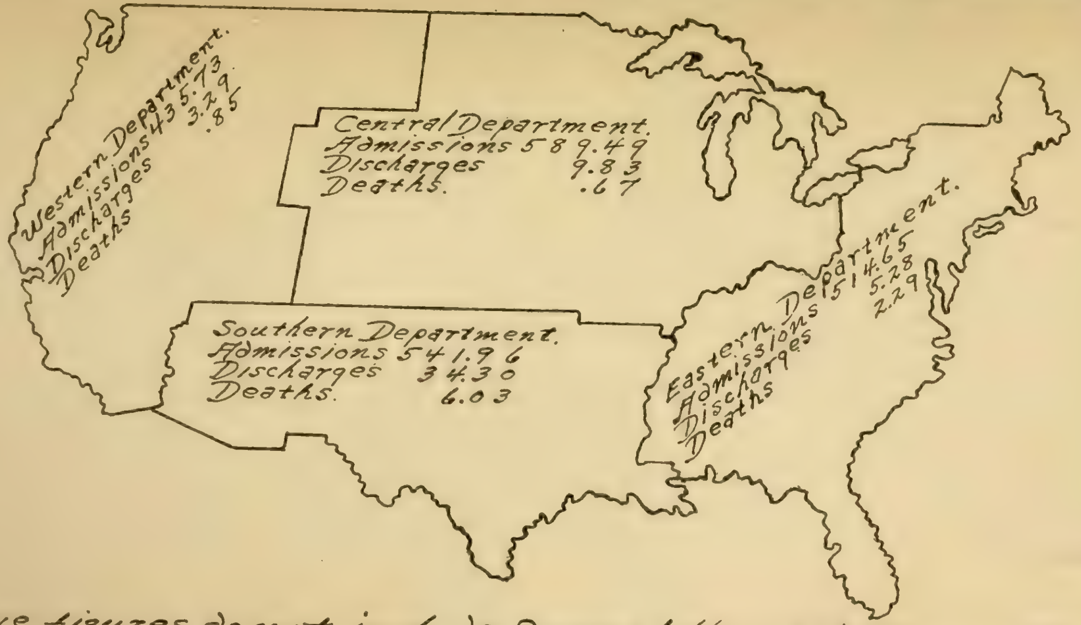
COMPARISON WITH FOREIGN ARMIES.

As in previous years it has been customary to make an effort to compare the health conditions in the United States with the same conditions in the armies of Great Britain, the continental powers, and Japan. Owing to the unusual conditions which have existed throughout the calendar year 1915 in Europe, no effort at comparison is made in this report.

SURGICAL OPERATIONS.

Table No. 66 shows the principal surgical operations performed by medical officers upon the personnel of the Army. Operations upon families of officers and enlisted men and other civilians who are entitled to treatment at Army hospitals at the various posts are not included. During the year 1915 there were 6,323 operations performed, of which 6,244 were successful, 36 partially successful, and 15 failures; 28 deaths resulted. Of the anesthetics used, ether was more prominent, being used in 2,459 cases, chloroform in 135, local anesthesia in 2,865, chloroform and ether or gas in 63, and other general anesthetics in 7 cases. Six hundred and eleven appendectomies were performed, of which 15 were gangrenous, 6 resulting in death; 289 herniotomies and 14 operations for goiter.

Military Departments, United States, continental {excluding Alaska} showing the relative Admission, Discharge, and Death rates for Disease, Officers and enlisted men, year, 1915.



Note: Above figures do not include General Hospitals, Recruit Depots, Independent Stations, and Infantry and Cavalry Divisions on the Mexican Border.

UNITED STATES (CONTINENTAL) EXCLUSIVE OF ALASKA.

ADMISSION RATE.

Cases only are counted; readmissions for the same illness are omitted in counting cases. Table No. 81 shows case admissions and total admissions for enlisted American troops of the Army for the United States and American troops, Philippine Islands, 1904 to 1911, inclusive.

Year.	Case admission rate.			Noneffective rate, all causes.	Highest noneffective rate for disease.	
	All causes.	For disease.	External causes.		Venereal.	Tuberculosis.
1915	704.01	564.49	139.52	25.74	3.99	2.33
1914	629.84	498.83	131.01	23.37	3.75	2.23
1913	619.90	487.94	131.96	22.94	3.58	2.34
1912	738.70	596.94	141.76	27.15	5.96	1.65
1911	837.00	680.00	157.00	31.40	8.82	1.63
1910	840.00	662.00	178.00	33.95	10.14	1.87

The admission rate for 1915, 704.01, is slightly higher than for the preceding year; this rate is compared with the rate for five years preceding in the total above. The noneffective is lower than the average for preceding five years.

DISCHARGES FOR DISABILITY.

The disability discharge rate for the United States for 1915 was 13.60 per 1,000, as compared with 14.82 for 1914, 13.45 for 1913, 14.48 for 1912, 15 for 1911 and 15.28 for 1910. It will be noted that the rate is considerably lower than for 1914.

TABLE NO. 7.—*Discharges for disability, year 1915, United States, continental (excluding Alaska).*

Causes of discharge.	Number discharged.	Per centage of total discharges for diseases or external causes.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
Nervous system and organs of special sense	286	37.09	70	201	15	4	4
Nervous system	253	32.81	52	187	14	2	4
Mental alienation	164	21.27	21	131	12	....	2
Dementia precox	93	9.47	11	82	....	....	1
Defective mental development	36	4.67	....	36	....	....	
General paralysis of the insane	12	1.56	....	....	12	....	....
Psychosis maniac depressive	7	.91	1	6	....	....	
Psychasthenia	1	.13	1	....	....	....	....
Psychosis, traumatic	1	.13	1	....	....	....	....
Other forms of mental alienation	14	1.82	7	7	....	....	
Epilepsy	39	5.06	2	37	....	....	1
Neurasthenia	12	1.56	6	6	....	....	
Hysteria	10	1.30	3	7	....	....	....

TABLE NO. 7.—*Discharges for disability, year 1915, United States, continental (excluding Alaska)*—Continued.

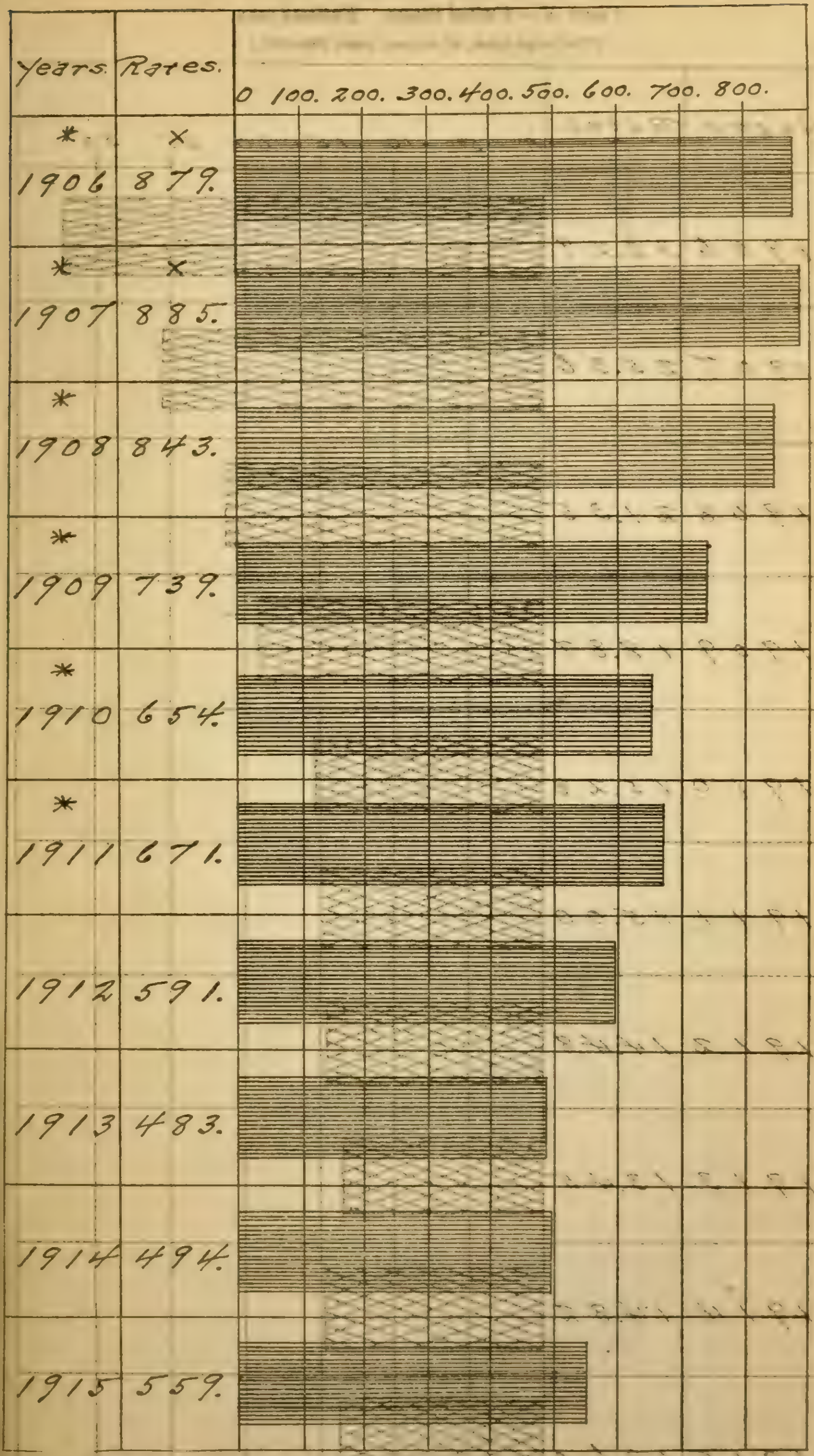
Causes of discharge.	Number discharged.	Per centage of total discharges for diseases or external causes.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Nervous system—Continued							
Neuritis	6	.78	5	1			
Epidemic cerebrospinal meningitis	6	.78	5	1		2	1
Paralysis without specified cause	4	.52	4				
Meningitis, simple	2	.26	2				
Locomotor ataxia	2	.26			2		
Others of the spinal cord	3	.39	2	1			
Others of the nervous system	5	.65	2	3			1
Diseases of the eye	20	2.59	10	9	1		
Cataract	4	.52	4				
Conjunctivitis	2	.26	1	1			
Amblyopia	2	.26		2			
Iritis	2	.26		2			
Others of the eye	10	1.30	5	4	1		
Diseases of the ear	13	1.69	8	5		2	1
Otitis media	11	1.43	7	4		2	1
Others of the ear	2	.26	1	1			
General diseases	228	29.57	115	67	46	13	23
Tuberculosis	108	14.01	80	27	1	2	11
Pulmonary, chronic	101	13.10	75	25	1	1	11
Of the pleura	2	.26	1	1		1	
Of the vertebra	1	.13	1				
Abdominal	2	.26	1	1			
Of other organs	2	.26	2				
Venereal diseases	57	7.39	1	25	31		5
Syphilis	35	4.54		21	14		3
Tertiary	23	2.98		15	8		2
Secondary	9	1.17		3	6		
Hereditary	1	.13		1			
Period undetermined	2	.26		2			1
Gonorrhea	20	2.59	1	4	15		2
Arthritis, gonorrheal	13	1.69		3	10		1
Urethritis	4	.52		1	3		1
Of the eye (innocently incurred)	1	.13	1				
Epididymitis, gonorrheal	1	.13			1		
Other gonorrheal infections	1	.13			1		
Chancroid	2	.26			2		
Articular rheumatism	17	2.20	9	5	3	3	3
Chronic articular	13	1.69	6	5	2	2	2
Acute articular	4	.52	3		1	1	1
Epidemic diseases	13	1.69	12	1		8	
Measles	8	1.04	8			8	
Dysentery, entamoebic	4	.52	4				
Erysipelas	1	.13		1			
Alcoholism, chronic	13	1.69		5	8		2
Exophthalmic goiter	8	1.04	4	4			2
Cancer	5	.65	5				
Drug habit	2	.26			2		
Leukemia	2	.26	1		1		
Hodgkins' disease	1	.13	1				
Diabetes	1	.13	1				
Pellagra	1	.13	1				
Diseases of the organs of locomotion	111	14.40	29	82		1	5
Flat foot	77	9.99	9	68			4
Arthritis	13	1.69	11	2		1	1
Synovitis	7	.91	5	2			
Hallux valgus	3	.39		3			
Mastoiditis	1	.13	1				
Periostitis	1	.13		1			
Rheumatism, muscular	1	.13		1			
Tenontosynovitis	1	.13	1				
Others of the order	7	.91	2	5			1
Diseases of the genito-urinary system (non-venereal)	44	5.71	9	35			9
Enuresis	27	3.50		27			9
Bright's disease	10	1.30	7	3			
Nephrolithiasis	3	.39	1	2			
Calculus in bladder	1	.13		1			
Hematuria, renal	1	.13	1				
Urethra, diseases of	1	.13		1			
Hydrocele	1	.13		1			

TABLE No. 7.—*Discharges for disability, year 1915, United States, continental (excluding Alaska*—Continued.

Causes of discharge.	Number discharged.	Percentage of total discharges for diseases or external causes.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the circulatory system	37	4.80	18	16	3	1	4
Organic heart disease	29	3.76	15	11	3	1	4
Valvular disease	25	3.24	13	11	1	1	4
Chronic endocarditis	4	.52	2		2		
Varicose veins	2	.26		2			
Acute endocarditis	1	.13	1				
Angina pectoris	1	.13		1			
Arterial sclerosis	1	.13	1				
Embolism	1	.13	1				
Varicocele	1	.13		1			
Tachycardia	1	.13		1			
Diseases of the digestive system	38	4.93	21	16	1	1	7
Inguinal hernia	14	1.82	7	6	1	1	5
Other hernia	3	.39	2	1			
Ulcer of stomach	2	.26	1	1			
Gastritis, chronic catarrhal	2	.26	1	1			
Dilitation of the stomach	1	.13		1			
Others of the stomach	2	.26	2				
Dental caries	1	.13		1			
Hypertrophic tonsils	1	.13		1			1
Hyperchlorhydria	1	.13		1			1
Ankylostomiasis	1	.13		1			
Appendicitis	1	.13	1				
Constipation	1	.13	1				
Cirrhosis of liver	1	.13	1				
Billiary calculi	1	.13	1				
Cholecystitis	1	.13	1				
Subphrenic abscess	1	.13	1				
Others of the intestines	1	.13		1			
Others of the liver	1	.13	1				
Others of the digestive system	2	.26	1	1		1	1
Diseases of the respiratory system	20	2.59	12	8		1	
Pleurisy	7	.91	7				
Asthma	6	.78	2	4			1
Goiter	3	.39		3			
Bronchitis, chronic	2	.26	2				
Rhinitis, atrophic	1	.13		1			
Bronchopneumonia	1	.13	1				
Diseases of the skin and cellular tissues	6	.78	1	4	1		
Cellulitis	1	.13	1				
Bromidrosis	1	.13		1			
Chilblain	1	.13		1			
Hyperidrosis	1	.13		1			
Other skin diseases	2	.26		1	1		
Congenital malformations	1	.13		1			
Total for disease	771	87.71	275	430	66	21	91
EXTERNAL CAUSES.							
Fractures	36	33.33	34		2		
Gunshot wounds	25	23.15	21		4	1	3
Secondary results of injuries	18	16.67	1	17			1
Crushing	8	7.41	4	1	3		1
Dislocations	5	4.63	4	1			
Sprains	5	4.63	5				
Burns	3	2.78	3				
Incised wounds	2	1.85	1		1		
Lacerated wounds	2	1.85	1		1		
Punctured wounds	1	.93	1				
Contused wounds	1	.93	1				
Concussion	1	.93	1				
Contusion	1	.93	1				
Total for external causes	108	100.00	78	19	11	1	5
Total for disease	771	87.71	275	430	66	21	91
Total for external causes	108	12.29	78	19	11	1	5
Grand total	879	100.00	353	449	77	22	96

Chart M.—United States. Officers and men.

[Admission rates for disease, years 1906–1915.]



* Excess of cases deducted to correspond with years preceding 1906 and 1912 to 1915.
× Enlisted men, officers not included.

Chart N.—United States. Enlisted men.

[Discharge rates, all causes, years 1906–1915.]

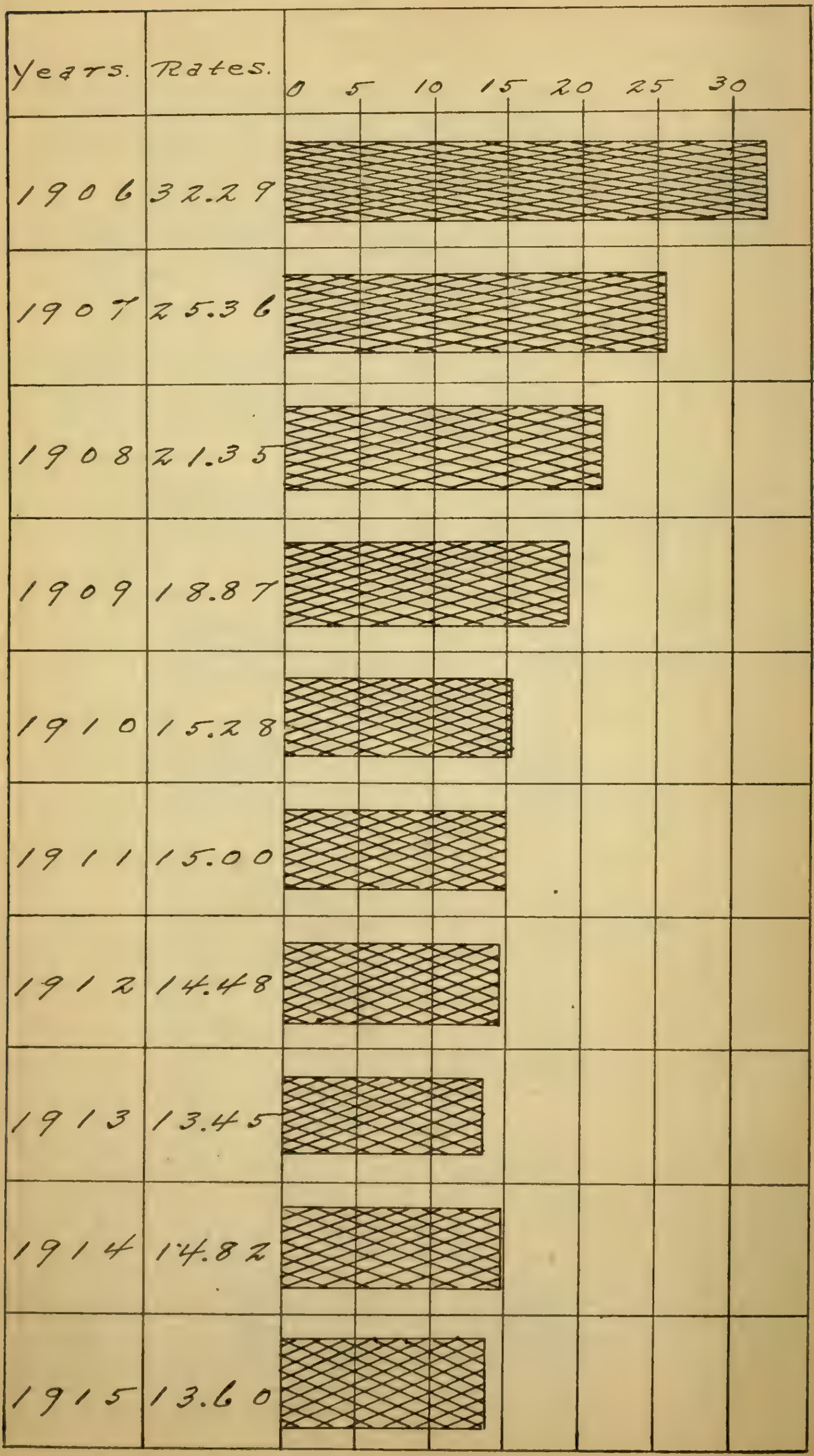
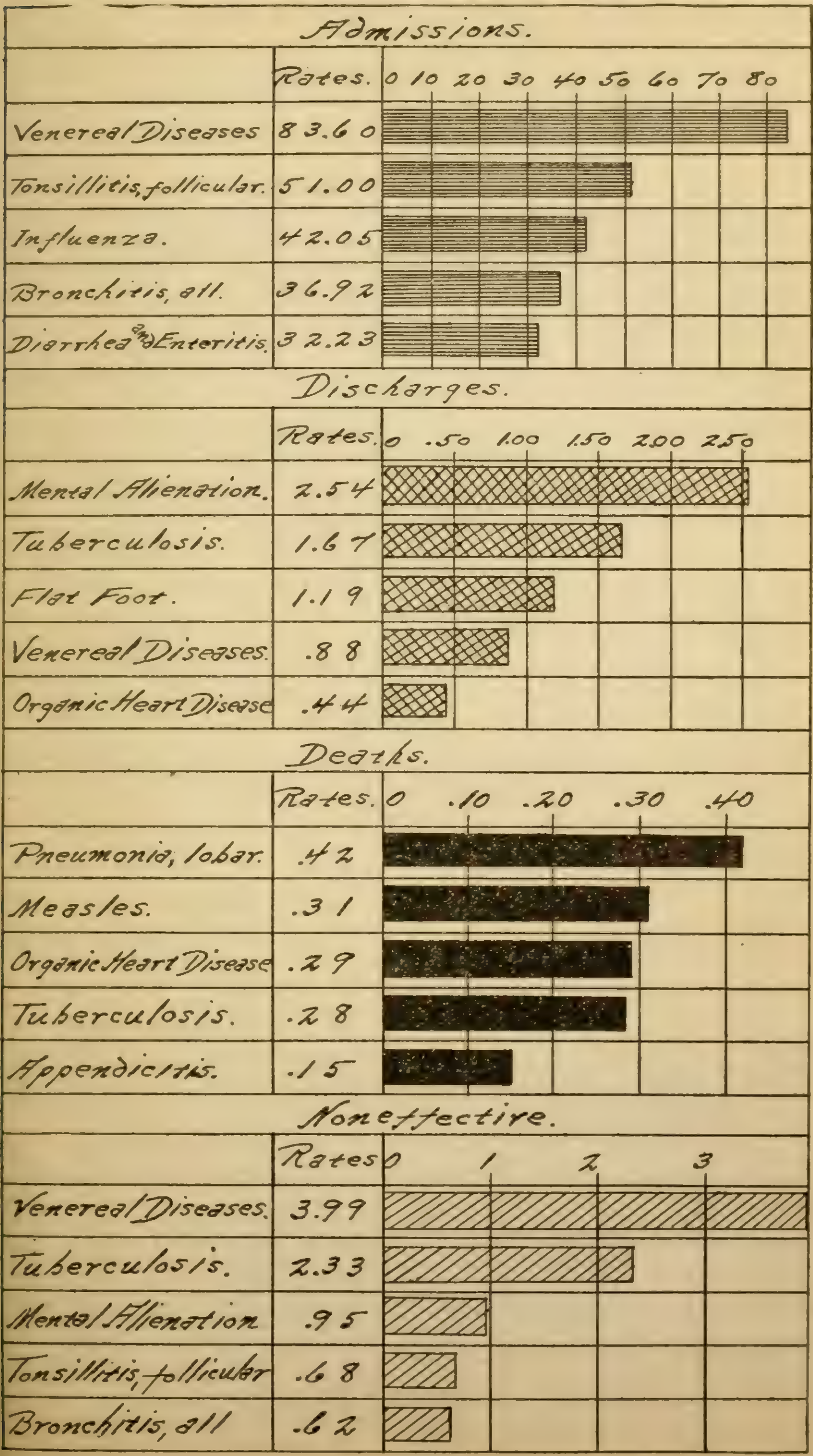


Chart O.—United States. Enlisted men.

[Admission, discharge, death, and noneffective rates for diseases having highest rates, year 1915.]



The principal causes of discharge with the percentage of the total number of discharges for disease were: Mental alienation, 21.27; tuberculosis, 14.01; flat foot, 9.99; venereal diseases, 7.39; epilepsy, 5.06; and diseases of the digestive system, 4.93. The order of frequency was the same for the year 1914, as in the years 1913 and 1912, except that flat foot changed places with venereal diseases.

DEATHS.

The death rate for diseases for the United States enlisted men was 2.99 per 1,000, as compared with 2.52 in 1914 and 2.62 in 1913. That for external causes was 2.41 per 1,000 in 1915, as compared with 2.30 in 1914 and 2.33 in 1913. The total for diseases and external causes was 5.40 in 1915, as compared with 4.82 in 1914 and 4.95 in 1913. The total number of deaths in 1915 was 349; of this number 193 were due to disease and 156 to external causes. Deaths as well as discharges which occurred in the United States among those who have been invalided home from their commands in foreign service have been charged to the country where such commands were stationed. Tuberculosis caused 18 deaths in 1915, 29 in 1914, and 24 in 1913; measles, 20 in 1915, 8 in 1914, and 11 in 1913; pneumonia (lobar), 28 in 1915, 15 in 1914, and 19 in 1913; and appendicitis, 10 in 1915, 9 in 1914, and 8 in 1913. There were 40 suicidal deaths in 1915, 37 in 1914, and 33 in 1913; 104 accidental deaths, 25 of which were by drowning, 25 by crushing, and 25 by firearms in 1915, as compared with 85 deaths in 1914 and 92 in 1913.

The following table shows the whole number of deaths occurring among both officers and enlisted men, the differences accounting for officers' deaths, which are used above, in order that accurate comparison could be made with statements from last year's report:

TABLE No. 8.—*Deaths among officers and enlisted troops serving in the United States continental (excluding Alaska), year 1915.*

Causes of death.	Number.	Ratio per 1,000 of—	
		Mean strength.	Death from disease or external causes.
DISEASES.			
Pneumonia (lobar)	28	0.41	139.30
Measles	20	.29	99.50
Organic heart disease	20	.29	99.50
Cardiac dilatation	9	.13	44.78
Vavular heart disease	8	.12	39.80
Endocarditis, chronic	1	.01	4.98
Myocarditis, chronic	1	.01	4.98
Rupture of right auricle	1	.01	4.98
Tuberculosis	18	.26	89.55
Pulmonary, chronic	13	.19	64.68
Abdominal	3	.04	14.93
Miliary, acute	1	.01	4.98
Of the vertebra	1	.01	4.98
Nephritis	11	.16	54.73
Chronic parenchymatous	5	.07	24.88
Chronic interstitial	3	.04	14.93
Acute nephritis	3	.04	14.93
Cancer	10	.15	49.75
Of the stomach	4	.06	19.90
Of the intestines and rectum	3	.04	14.93
Of the extremities	2	.03	9.95
Of the lungs	1	.01	4.98
Appendicitis	10	.15	49.75

TABLE No. 8.—*Deaths among officers and enlisted troops serving in the United States, continental (excluding Alaska), year 1915*—Continued.

Causes of death.	Number.	Ratio per 1,000 of	
		Mean strength.	Death from disease or external causes.
DISEASES—continued.			
Epidemic cerebrospinal meningitis	9	0.13	44.78
Cerebral hemorrhage, apoplexy	6	.09	29.85
Broncho-pneumonia	5	.07	24.88
Purulent infection and septicemia	5	.07	24.88
Influenza	4	.06	19.90
Venereal diseases	4	.06	19.90
Tertiary syphilis	2	.03	9.95
Secondary syphilis	1	.01	4.98
Gonorrhea	1	.01	4.98
Alcoholism, acute	4	.06	19.90
Diseases of the pancreas	4	.06	19.90
Diabetes, mellitus	3	.04	14.93
Mental alienation	3	.04	14.93
General paralysis of the insane	2	.03	9.95
Psychosis, maniac depressive	1	.01	4.98
Pleurisy	3	.04	14.93
Empyema	2	.03	9.95
Sero-fibrinous	1	.01	4.98
Ulcer of duodenum	3	.04	14.93
Aestivo-autumnal malarial fever	2	.03	9.95
Angina pectoris	2	.03	9.95
Aneurism	2	.03	9.95
Arterial sclerosis	2	.03	9.95
Ulcer of the stomach	2	.03	9.95
Intestinal obstruction	2	.03	9.95
Cellulitis	2	.03	9.95
Scarlet fever	1	.01	4.98
Erysipelas	1	.01	4.98
Benign tumor of brain	1	.01	4.98
Pernicious anemia	1	.01	4.98
Aortic stenosis	1	.01	4.98
Embolism	1	.01	4.98
Bronchitis, chronic	1	.01	4.98
Angina, Vincent's	1	.01	4.98
Dilatation of the stomach	1	.01	4.98
Acute yellow atrophy of the liver	1	.01	4.98
Cirrhosis of the liver	1	.01	4.98
Acute degenerative hepatitis	1	.01	4.98
Peritonitis, general	1	.01	4.98
Total for disease	201	2.95	555.25
EXTERNAL CAUSES.			
Suicidal	40	.59	248.45
By firearms (rifle, 10; revolver, 12)	22	.32	136.65
By hanging	9	.13	55.90
By poison (bichloride of mercury, 2; strychnine, 1; hydrocyanic acid, 1)	4	.06	24.84
By drowning	3	.04	18.63
By cutting throat with razor	1	.01	6.21
By jumping from balcony, striking on head	1	.01	6.21
Homicidal	17	.25	105.59
By firearms (rifle, 6; revolver, 3; not stated, 3) (by comrades, 6; by Mexicans, 3; by civilians, 2; by unknown person, 1)	12	.18	74.53
By stab wounds (in brawls, 2; unknown, 1)	3	.04	18.63
By blow on head from a rock by unknown man in a drunken brawl in a saloon)	1	.01	6.21
Found dead (head mashed by unknown instrument)	1	.01	6.21
Accidental	104	1.53	645.96
By drowning (during hurricane and flood at Galveston, Tex., 6; while bathing, 5; by boats overturning, 5; by falling from boats, 3; by falling from precipice into canal, 1; by being knocked overboard off trestle by train and falling into canal, 1; while attempting a rescue, 1; circumstances unknown, 3)	25	.37	155.28
By crushing (by falling walls during hurricane and flood at Galveston, Tex., 12; by railroad trains, 3; by switch engine, 1; by street car, 1; by automobile overturning, 2; run over by, 1; on bicycle colliding with, 1; by falling with aeroplane, 1; with hydroaeroplane, 1; by being thrown from runaway team, 1; run over by wheel of cannon, 1)	25	.37	155.28

TABLE NO. 8.—*Deaths among officers and enlisted troops serving in the United States, continental (excluding Alaska), year 1915*—Continued.

Causes of death.	Number.	Ratio per 1,000 of—	
		Mean strength.	Death from disease or external causes.
EXTERNAL CAUSES—continued.			
By firearms (in action by Mexican bandits, 11; by sentry or guard, 2; by shotgun while hunting, 2; by shotgun in hands of fellow soldier, 2; by shotgun while returning it to place in escort wagon, 1; by revolver, accidental, self-inflicted, 3; by bullet from revolver which the soldier dropped, 1; by bullet from automatic pistol which soldier was cleaning, 2; by bullet from rifle in hands of Mexican in battle, 1)	25	0.37	155.28
By fall (from horse, 2; from buggy, 1; from railroad train, 1; from elevated train, 1; from automobile, 1; down cellar stairs, 1)	7	.10	43.48
By poison (effects of heroin, self-administered by drug habitue, 1; by narcotic, acute, due to ingestion of large quantity of alcohol, 2; by neosalvarsan, in treatment of syphilis, 1; by wood alcohol, used as beverage, 1; by ptomaine, 1)	6	.09	37.27
By animals (kicked by horse, 2; by mule, 1; thrown from saddle and fallen upon by horse, 1)	4	.06	24.84
By suffocation or strangulation (obstruction in bronchi by foreign body, the effects of vomiting while undergoing operation for appendicitis, 1; from carbon monoxide while sleeping in rooming house, 1)	2	.03	12.42
By penetrating wound (stabbed with pocketknife by another soldier in drunken brawl, 1)	1	.01	6.21
By other external violence (diving in shallow water, striking head and fracturing spine, 3; by explosives at Frankford Arsenal, 2; by striking head against supports on leaning out of a "joy-riding car," 1; struck by auto driven by parties unknown, 2; struck on head (instrument unknown) in a fight in saloon, 1)	9	.13	55.90
Total for external causes	161	2.36	444.75
Total for disease	201	2.95	555.25
Grand total	362	5.31	1,000.00

PREVALENCE OF SPECIAL DISEASES.

TYPHOID FEVER.

Eight cases of typhoid fever (officers and enlisted men) occurred in the entire United States Army during the calendar year 1915. Only four of these were among troops stationed in the United States, the other four occurred in the island possessions. During the year the Army was scattered over the earth through a wide range of latitude in Alaska, in Panama, in China, in Porto Rico, in Hawaii, in the Philippines, in Mexico, and in the various camps, posts and garrisons north, south, east and west of the continental territory of the United States. The mean strength for the year was 103,842.

There were no deaths from typhoid fever and no serious complications followed the cases that occurred.

Of the eight cases reported one was in the person of an officer and seven in enlisted men, including a recruit, who is now known to have been in the prodromal stage of the disease when accepted for enlistment. All except the recruit received the antityphoid vaccination; the officer four years seven months and two days before; the enlisted men showed the following intervals of time between the date of vaccination and the date of sickness:

1. Private, 8 months 18 days.
2. Private, 2 years 1 month 23 days.
3. Recruit, not vaccinated.
4. Private, 1 year 8 months 27 days.
5. Private, 1 year 8 months 12 days.
6. Private, 8 months 9 days.
7. Private, 2 years 7 months 12 days.

Of the four cases occurring in the island possessions (Schofield Barracks), three were enlisted men of the same organization, First Infantry and the fourth an enlisted man of the Fourth Cavalry, all of which occurred within a period of 25 days from the onset of the first case.

Revaccination against typhoid fever upon reenlistment is now required in the same way as revaccination against smallpox. Officers are required to be revaccinated five years after the first course. After two completed courses of vaccination are given no further is required.

Duration of immunity: The question of the duration of immunity conferred by antityphoid vaccination is still an open one, statistical information being at this time too meager to draw definite and satisfactory conclusions on this point.

The English observers from their experience in India and elsewhere have inclined to the belief that the protection against typhoid fever furnished by the vaccination as they give it, begins to decline between the second and third year following administration.

Students of this subject in our Army, including those most competent anywhere to discuss the matter have with few exceptions ascribed a much greater degree and longer period of protection against typhoid, when the vaccination was made with the vaccine prepared by the Medical Department of the Army and given, as now prescribed, three doses at intervals of 10 days, a total of 2½ cubic centimeters, the first dose being one-half cubic centimeter, the succeeding doses 1 cubic centimeter each.

It is generally understood, of course, that the protection from the typhoid vaccine has never been considered absolute in all individuals, a certain small percentage of persons being incapable of complete immunization against the disease, as is shown by the fact that actual attacks of typhoid fever itself do not always afford freedom from a second attack. Other reasons for the appearance of typhoid among those vaccinated are inert vaccines or defective methods of administration and unusual exposure to highly infective typhoid material.

It may be stated that the disease occurring after antityphoid vaccination, with but few exceptions, shows a much milder course than ordinary, and the death rate is markedly lower among those who have received the antityphoid vaccination.

The following tabulation is for the purpose of comparing the figures for 1915 with those for the years 1914 and 1913:

Typhoid fever, the Army, officer and enlisted men, American and native troops.

Year.	Cases.		Deaths.		Immunized persons.	
	Number.	Rates for 1,000 mean strength.	Number cases.	Rates for 1,000 mean strength.	Cases.	Deaths.
1915	8	0.08			7	
1914	7	.07	3	0.03	1	
1913	4	.04			2	

Attention is invited to Chart P, showing the admission and death rates for officers and enlisted men serving in the United States This chart shows graphically the remarkable decrease in both rates as the result of the use of the antityphoid vaccination. This vaccination was begun—but was voluntary—in 1909, and was made compulsory for the entire Army in 1911. (For the various steps from voluntary to compulsory vaccination, vide annual report of this office for 1912, pp. 52 et seq.)

The increasing use of antityphoid vaccination as a preventio against typhoid by the National Guard is to be encouraged. Thi procedure is now necessary before these troops can be mustered int the Federal service, or be accepted as Volunteers; and to have thi already accomplished is to materially expedite the mustering in o such troops. It is also deemed desirable, in order that standardize results may be obtained, that the vaccine made for the Regula Army and supplied by the laboratory, Army Medical School, Washington, D. C., be used for the troops liable to service.

TABLE No. 9.—*Typhoid fever.*

No.	Rank.	Date of enlistment or commission.	Date taken sick.	Date vaccinated.			Original diagnosis.	Laboratory findings.	Previous vaccination or typhoid.	Result of disease.	Age.	Station.	Remarks.
				First dose.	Second dose.	Third dose.							
1	First lieutenant, Coast Artillery Corps.[1]	1908 Sept. 25	1915 Feb. 13	1910 June 20	1910 June 29	1910 July 11	Typhoid...	Blood positive for typhoid, Feb. 27, 1915.	Vac., yes; typ., no.	Duty, June 8, 1915.	28	U. S. A. mine planter Gen. S. M. Mills.	Treated at Key West Barracks, Fla.
2	Private, Troop B, Tenth Cavalry.[2]	1914 Sept. 28	July 6	1914 Sept. 28	1914 Oct. 8	1914 Oct. 18	.....do.....	Blood positive for typhoid, July 15, 1915.	Vac., no; typ., no.	Duty, Aug. 13, 1915.	22	Fort Huachuca, Ariz.	Felt badly for several days before admission to sick report.
3	Cook, Troop H, Third Cavalry.[3]	1913 May 27	Aug. 8	1913 May 27	1913 June 5	1913 June 15	Malta fever.	Blood positive for typhoid, A. M. School.	Vac., no; typ., no.	Duty, Sept. 19, 1915.	26	Mission, Tex.	Felt badly for couple of weeks before transfer to Fort Sam Houston, Tex.
4	Recruit, Cavalry..	1915 Oct. 9	Oct. 12	(4)	(4)	(4)	Typhoid...	Blood positive for typhoid fever, Oct. 22, 1915.	Vac., no; typ., no.	Duty, Jan. 3, 1916.	19	Fort Oglethorpe, Ga.	Vaccinated against smallpox Oct. 9, 1915.
5	Private, Company F, First Infantry.[2]	1914 Jan. 2	Oct. 19	1914 Jan. 2	1914 Jan. 12	1914 Jan. 22	.....do.....	Blood positive for typhoid fever.	Vac., no; typ., no.	Duty, Dec. 23, 1915.	24	Schofield Barracks, Hawaii.	Taken sick while on maneuvers.
6	Private, Company I, First Infantry.[3]	Jan. 27	Oct. 28	Jan. 27	Feb. 6	Feb. 16	.....do.....	Blood positive for typhoid fever, Nov. 4, 1915.	Vac., no; typ., no.	Duty, Jan. 31, 1916.	24	.....do.....	Relapse, Dec. 24, 1915; widal positive, Nov. 13, 1915.
7	Private, Company E, First Infantry.[5]	1915 Feb. 4	Nov. 2	1915 Feb. 3	1915 Feb. 13	1915 Feb. 23	.....do.....	.....do.....	Vac., no; typ., no.	.....do.....	19	.....do.....	Widal positive.
8	Private, Troop K, Fourth Cavalry.[6]	1913 Mar. 10	Nov. 13	1913 Mar. 11	1913 Mar. 21	1913 Apr. 1	.....do.....	Blood positive for typhoid, Nov. 22, 1915.	Vac., no; typ., no.	Duty, Jan. 19, 1916.	24	.....do.....	Widal positive, Nov. 24, 1915.

[1] Fort Washington, Md.
[2] Columbus Barracks, Ohio.
[3] Fort Slocum, N. Y.
[4] Not vaccinated; feeling badly at time of enlistment.
[5] Fort McDowell, Cal.
[6] Jefferson Barracks, Mo.

Chart P.—United States. Officers and men.

[Admission and death rates for typhoid fever, years 1906–1915.]

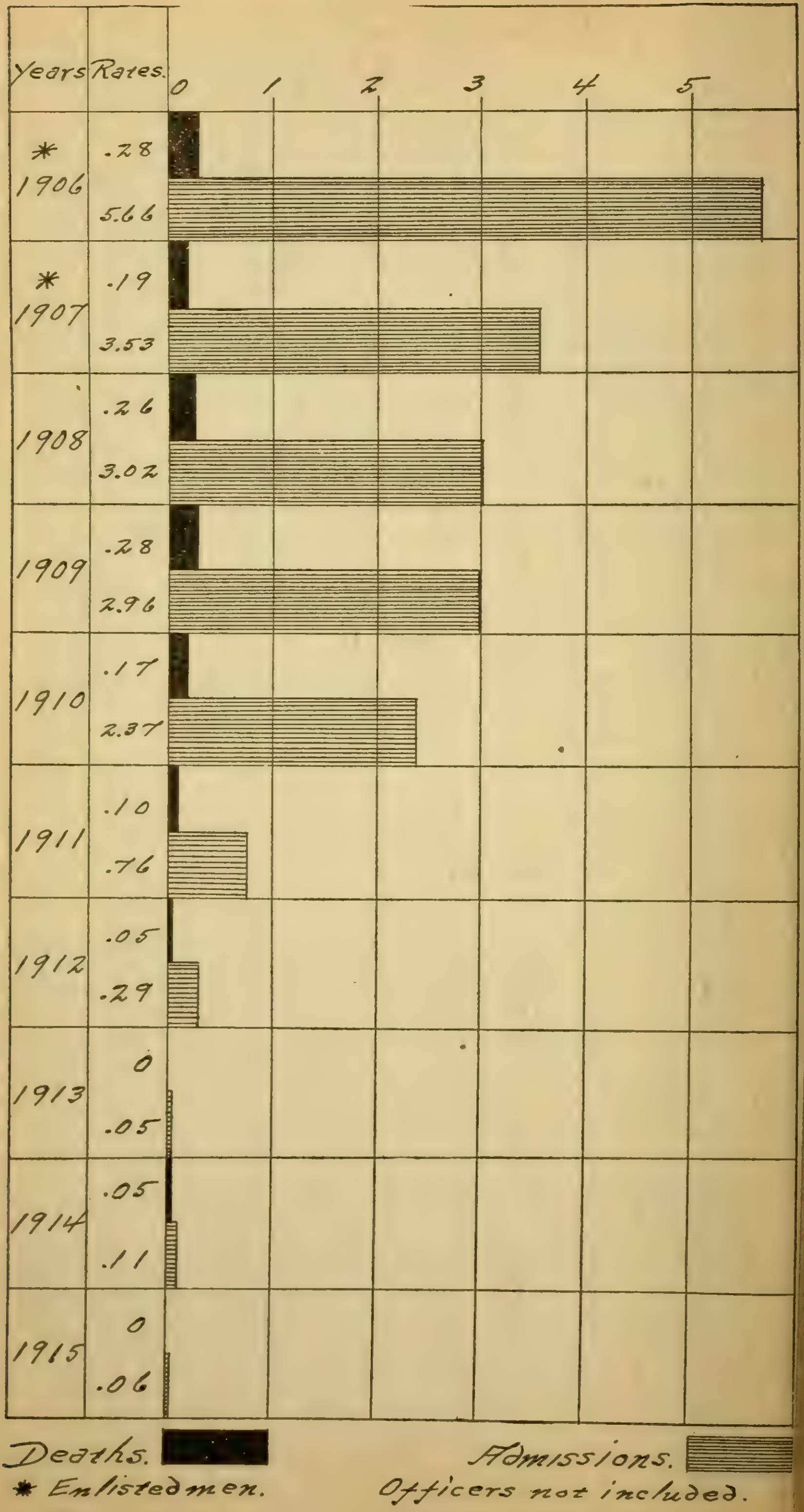
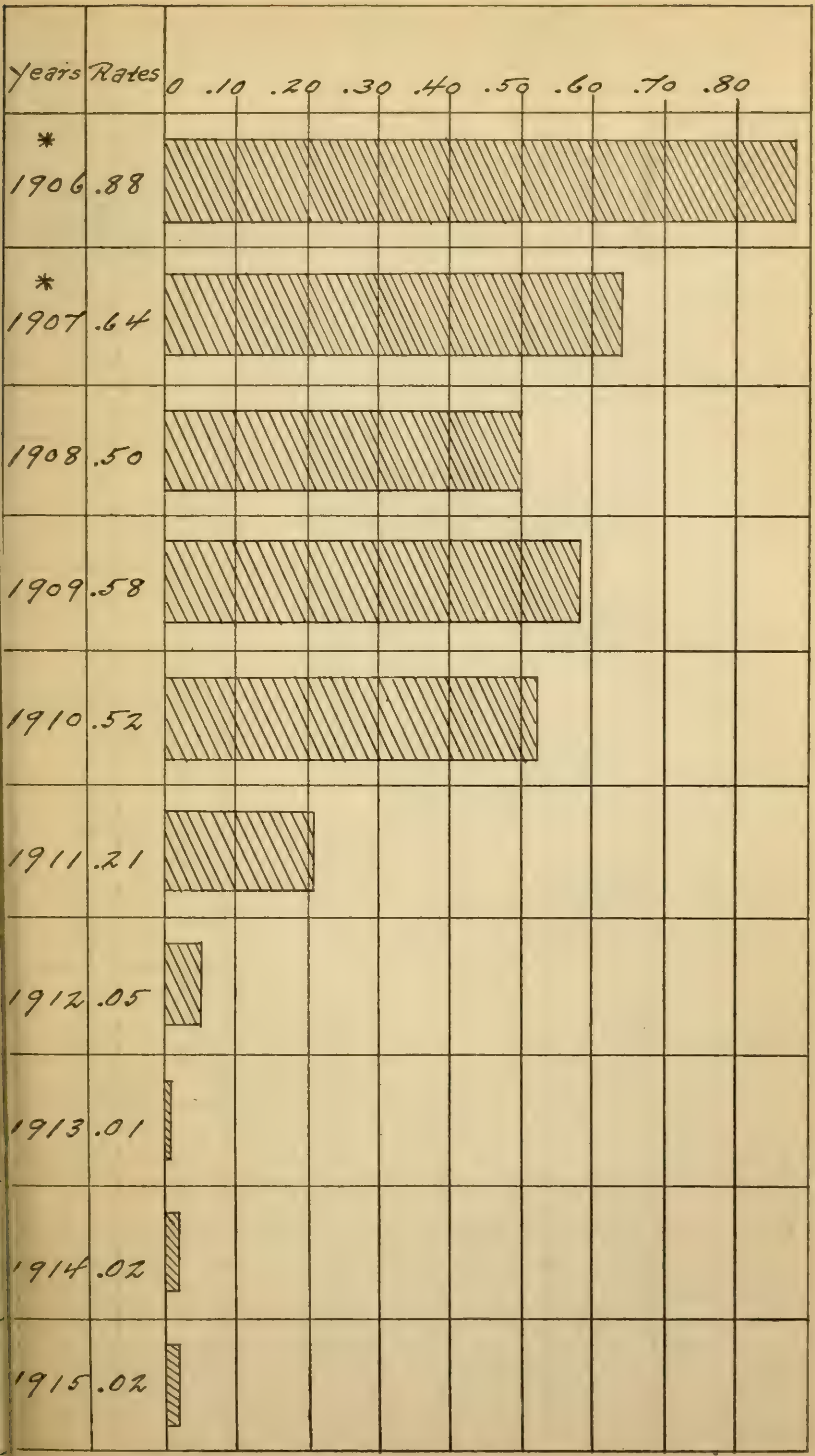


Chart P¹.—United States. Officers and men.

[Noneffective rates for typhoid fever, years 1906–1915.]



Enlisted men. * Officers not included.

Chart Q.—Army. Officers and American and native troops.

[Admission rates for typhoid fever, years 1906–1915.]

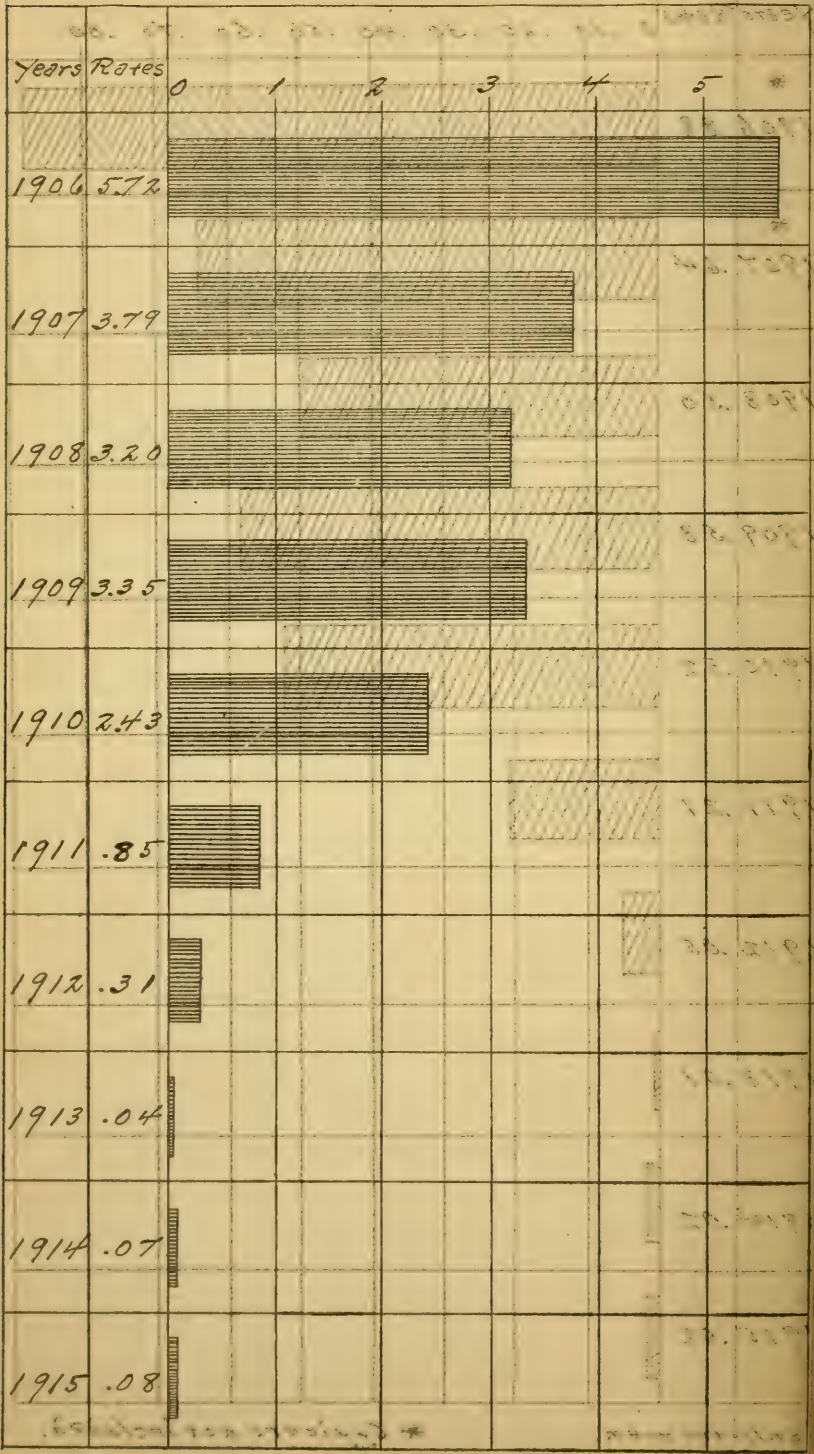
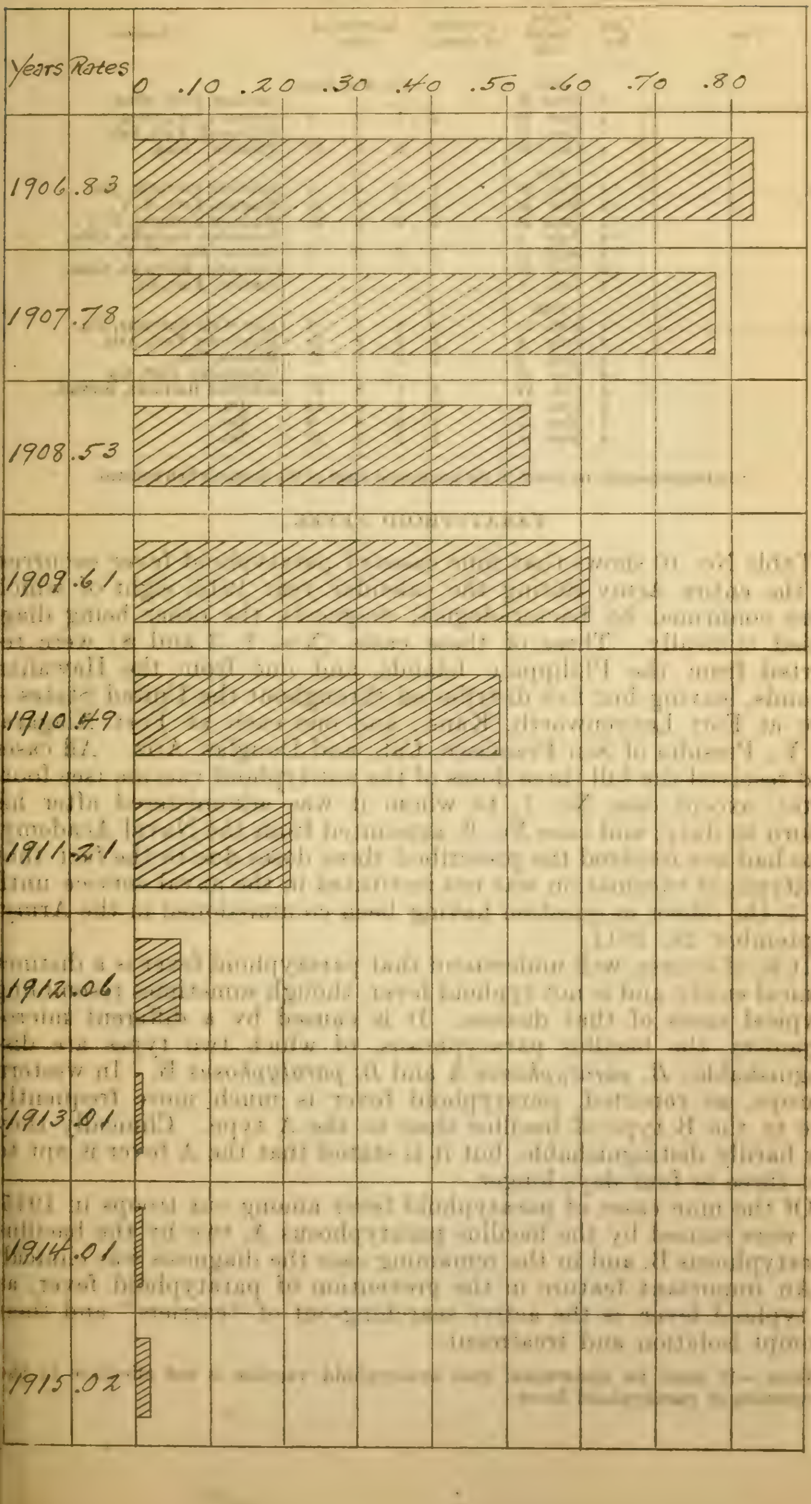


Chart Q¹.—Army. Officers and American and native troops.

[Noneffective rates for typhoid fever, years 1906-1915.]



Intervals of time elapsing between antityphoid vaccination and onset of typhoid fever, with number of cases and stations, years 1913, 1914, and 1915.

Year	Case No.	Date taken sick.	Number of doses.	Interval of time.			Station.
		1913.		Yrs.	Mos.	Days.	
1913	[1] 1	June 26					Snelling, Fort, Minn.
	2	Nov. 24	3	1	3	8	Stevens, Fort, Oreg.
	[1] 3	Dec. 13					McDowell, Fort, Cal.
	4	Oct. 23	3	2	0	23	Tientsin, China.
		1914.					
1914	[1] 1	Feb. 26	1	0	0	3	Jefferson Barracks, Mo.
	2	Mar. 23	3	1	3	21	Niagara, Fort, N. Y.
	3	June 24	2	2	2	23	Madison Barracks, N. Y.
	[1] 4	July 4					Columbus Barracks, Ohio.
	[1] 5	Sept. 11	2	0	0	3	Slocum, Fort, N. Y.
	[1] 6	Nov. 22					Columbus Barracks, Ohio.
	7	Dec. 1					Screven, Fort, Ga.
		1915.					
1915	1	Feb. 13	3	4	7	2	Key West Barracks, Fla.
	2	July 6	3	0	8	18	Huachuca, Fort, Ariz.
	3	Aug. 8	3	2	1	23	Mission, Tex.
	[1] 4	Oct. 12					Oglethorpe, Fort, Ga.
	5	Oct. 19	3	1	8	27	Schofield Barracks, Hawaii.
	6	Oct. 28	3	1	8	12	Do.
	7	Nov. 2	3	0	8	9	Do.
	8	Nov. 13	3	2	7	12	Do.

[1] Indicates recruit; no doubt in the prodromal stage of the disease when enlisted.

PARATYPHOID FEVER.

Table No. 10 shows that nine cases of paratyphoid fever occurred in the entire Army during the calendar year 1915, eight of which were confirmed by bacteriological diagnosis, the other being diagnosed clinically. Three of these cases (Nos. 1, 3 and 8) were reported from the Philippine Islands, and one from the Hawaiian Islands, leaving but five distributed throughout the United States—two at Fort Leavenworth, Kans., and one each at Fort Niagara, N. Y., Presidio of San Francisco, Cal., and Douglas, Ariz. All cases had received the full three doses of the antityphoid vaccine (see footnote), except case No. 1, to whom it was administered after his return to duty, and case No. 9, appointed from the Naval Academy, who had not received the prescribed three doses due to the fact that antityphoid vaccination was not instituted in the naval service until 1912, the officer in question having been commissioned in the Army, September 28, 1911.

It is, of course, well understood that paratyphoid fever is a distinct clinical entity and is not typhoid fever, though sometimes resembling atypical cases of that disease. It is caused by a different microorganism, the bacillus paratyphosus, of which two types are distinguishable: *B. paratyphosus* A and *B. paratyphosus* B. In western Europe, as reported, paratyphoid fever is much more frequently due to the B type of bacillus than to the A type. Clinically they are hardly distinguishable, but it is stated that the A fever is apt t last three or four days longer.

Of the nine cases of paratyphoid fever among our troops in 1915 six were caused by the bacillus paratyphosus A, two by the bacillu paratyphosus B, and in the remaining case the diagnosis was clinical

An important feature in the prevention of paratyphoid fever, a in typhoid fever, is the active searching-out of "carriers" and thei prompt isolation and treatment.

NOTE.—It must be understood that antityphoid vaccine is not effective in th prevention of paratyphoid fever.

TABLE No. 10.—*Paratyphoid fever, 1915.*

No.	Rank.	Age.	Organization.	Service.		Date taken sick.	Where sick.	On duty at—	Laboratory findings.	Vaccinated against typhoid.	Result of disease.
				Yrs.	*mos.*	1915.					
1	Private...	27	Twenty-sixth Company Philippine Scouts.		4	Jan. 1	Camp Keithley, Mindanao, P. I.	Camp Keithley, Mindanao, P. I.	B. Paratyphosus, type A. pure culture from urine.	3 doses, Feb. 4, 15, and 26, 1915, Camp Keithley, P. I.	Duty Jan. 30, 1915.
2	Corporal..	25	Company L, Twenty-ninth Infantry.	6	4	Jan. 17	Fort Niagara, N. Y.	Fort Niagara, N. Y.	B. Paratyphosus, type A, blood, Army Medical School laboratory.	3 doses, May, 1911, and 1 dose, reenlistment, Nov. 5, 1914, Columbus Barracks, Ohio.	Duty Mar. 5, 1915.
3	Private...	27	Company I, Twenty-fourth Infantry.		5	Mar. 24	Camp Eldridge, Laguna, P. I.	Camp Eldridge, Laguna, P. I.	B. Paratyphosus, type B, blood, department laboratory, Manila, P. I.	3 doses, completed, Nov. 6, 1914, Columbus Barracks, Ohio.	Duty Apr. 27, 1915.
4	...do.......	25	Battery F, First Field Artillery.		8	June 3	Schofield Barracks and department hospital, Honolulu.	Schofield Barracks, Honolulu.	B. Paratyphosus, type A, blood culture.	3 doses, enlistment, Oct. 12, 21, and 30, 1914, Fort McDowell, Cal.	Duty Aug. 28, 1915.
5	...do......	23	One hundred and fifty-eighth Company, Coast Artillery Corps.	2	2	June 24	Letterman General Hospital, San Francisco, Cal.	Presidio of San Francisco, Cal.	B. Paratyphosus, type A, blood and stool.	3 doses, completed, Aug. 15, 1913, Jefferson Barracks, Mo.	Duty July 24, 1915.
6	...do......	28	Detachment of Quartermaster Corps.	3	8	Aug. 12	Fort Leavenworth, Kans.	Fort Leavenworth, Kans.	Blood and stools negative; diagnosis, clinical.	3 doses, Dec., 1911, and Dec., 1914, Jefferson Barracks, Mo.	Duty Sept. 15, 1915.
7	...do......	29	Troop H, Fifth Cavalry.	1	7	Aug. 15	.....do..........	.....do..........	B. Paratyphosus, type B, isolated from blood.	3 doses, completed, Feb. 11, 1914, Fort Slocum, N. Y.	Do.
8	...do......	23	Twenty-sixth Company Philippine Scouts.	1	6	Nov. 12	Camp Keithley, Mindanao, P. I.	Camp Keithley, Mindanao, P. I.	B. Paratyphosus, type A, blood culture, department hospital, Manila, P. I.	3 doses, completed, May 7, 1914; no typhoid or previous vaccination.	Duty Dec. 24, 1915.
9	Second lieutenant.	27	Sixth Field Artillery, appointed from Naval Academy.	4		Nov. 24	Douglas, Ariz...	Douglas, Ariz...	B. Paratyphosus, type A, department laboratory, Southern Department, Fort Sam Houston, Tex.	Officer states had 2 doses about nine years ago.	

It may be stated at this time that paratyphoid fever, heretofore but unfrequently met with in our Army, appeared in the New York division of the National Guard, stationed in the Brownsville district, in August, 1916, principally among the troops at Mission, Tex. A few scattering cases at other points occurred in the same district; in all a total of 120 cases.

The outbreak of this disease was promptly and satisfactorily met. The vaccination against paratyphoid with a mixed Para-typhoid A. and B. vaccine prepared in the laboratories of the Army Medical School was authorized; the searching out of possible "carriers" of the disease was vigorously prosecuted; camp sites were changed, and all sanitary orders rigidly enforced under the direction of inspectors of the Army Medical Corps.

VENEREAL DISEASES.

Special measures for protection against this class of infectious diseases were formulated five years ago, since which time, so far as lies in the power of the Medical Department, they have been vigorously and conscientiously carried out, and it is further believed that in the great majority of instances there has been no laxness in the strict enforcement of the regulations by others in military authority. It should be understood that the prime source of infection in venereal disease lies not within military jurisdiction and control, but in the civilian life, quite apart from the immediate garrison life of the soldier and the rigid supervision incident thereto.

TABLE NO. 12.—*Venereal diseases, Army and United States continental (excluding Alaska) enlisted American troops, compared for years 1913, 1914, and 1915.*

	Army (enlisted American troops).			United States continental (excluding Alaska) enlisted men.		
	1915	1914	1913	1915	1914	1913
Ratios per 1,000 of mean strength for:						
Cases admitted	107.71	110.69	97.22	83.60	89.84	85.83
Men constantly noneffective	4.78	4.73	4.51	3.99	3.75	3.58

TABLE NO. 13.—*Venereal diseases, admissions and discharges, Army American troops (enlisted men), year 1915.*

	Mean strength.	Syphilis.				Chancroid.			
		Admissions.		Discharges.		Admissions.		Discharges.	
		Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States	63,725	1,099	17.24	35	0.54	1,007	15.80	2	0.03
Alaska	763	3	3.93	....	....	6	7.86	....	....
Philippines	11,834	482	40.73	6	.50	450	38.02	....	....
Hawaii	8,572	236	27.53	4	.45	96	11.20	....	....
Panama	5,721	91	15.91	1	.17	300	52.44	....	....
China	1,335	68	50.94	1	.75	286	214.23	....	....
Army transports	1,312	13	9.91	....	....	41	31.25	....	....
Total	93,262	1,992	21.36	47	.50	2,186	23.44	2	.02

TABLE No. 13.—*Venereal diseases, admissions and discharges, Army American troops (enlisted men), year 1915*—Continued.

	Gonorrhea.				Total.			
	Admissions.		Discharges.		Admissions.		Discharges.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States	3,222	50.56	20	0.31	5,328	83.60	57	0.88
Alaska	18	23.59	....	....	27	35.39	....	....
Philippines	1,273	107.57	5	.42	2,205	186.32	11	.93
Hawaii	517	60.31	1	.11	849	99.04	5	.56
Panama	390	68.17	3	.51	781	136.51	4	.68
China	319	238.95	....	....	673	504.12	1	.75
Army transports	128	97.56	....	....	182	138.72	....	....
Total	5,867	62.91	29	.31	10,045	107.71	78	.82

	Total days.	Constantly sick.	Ratio per 1,000.
Syphilis	45,708	125.23	1.34
Chancroid	29,653	81.24	.87
Gonorrhea	87,216	238.95	2.56
Total	162,577	445.42	4.78

TABLE No. 14.—*Venereal diseases, by years, 1911 to 1915, United States, continental (excluding Alaska), enlisted men.*

[Ratio per 1,000 of mean strength.]

	Number of cases after deducting recurrent admissions.	Admitted.			Discharged on certificate of disability.			Died.			Noneffective.		
		Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.
Gonorrhea and results:													
1915	50.56	50.56	50.91	41.82	0.31	0.32	......	0.02	0.02	......	2.05	2.04	2.19
1914	51.35	51.35	52.04	28.99	.32	.33	......	......	......	......	1.80	1.81	1.44
1913	49.46	49.46	49.14	60.14	.66	.68	......	......	......	......	1.84	1.84	1.65
1912	70.07	70.07	69.87	74.36	.60	.61	0.40	.02	.02	......	3.26	3.27	2.94
1911	85.37	94.52	94.48	45.12	.79	.84	......	......	......	......	4.68	4.72	3.93
Chancroid:													
1915	15.80	15.80	15.73	17.63	.03	.02	.41	......	......	......	.72	.71	.85
1914	19.96	19.96	20.09	18.56	......	......	......	......	......	......	.80	.79	1.18
1913	15.38	15.38	15.11	24.76	......	......	......	......	......	......	.57	.56	.98
1912	20.09	20.09	20.52	10.45	.03	.03	......	......	......	......	1.01	1.03	.50
1911	23.55	25.04	25.22	21.82	......	......	......	......	......	......	1.32	1.34	1.05
Syphilis:													
1915	17.24	17.24	17.44	12.30	.54	.51	1.23	.05	.03	0.41	1.22	1.23	1.18
1914	18.53	18.53	18.86	7.66	.55	.43	4.38	.05	.05	......	1.15	1.11	2.46
1913	20.99	20.99	20.98	21.23	.35	.29	2.36	.07	.05	.59	1.17	1.15	1.90
1912	25.58	25.58	25.84	19.69	.62	.61	.80	.03	.03	......	1.70	1.68	2.11
1911	26.37	44.30	45.33	25.91	.52	.48	1.36	.11	.11	......	2.82	2.85	2.30
Total venereal:													
1915	83.60	83.60	84.08	71.75	.88	.85	1.64	.06	.05	.41	3.99	3.98	4.22
1914	89.84	89.84	90.99	52.52	.87	.77	4.38	.05	.05	......	1.15	1.11	2.46
1913	85.83	85.83	85.23	106.13	1.01	.97	2.36	.07	.05	.59	3.58	3.55	4.53
1912	115.74	115.74	116.24	104.50	1.26	1.26	1.21	.05	.05	......	5.96	5.98	5.55
1911	145.29	163.85	165.03	142.85	1.31	1.31	1.36	.11	.11	......	8.82	8.91	7.29

TABLE NO. 15.—*Syphilis, United States, continental (excluding Alaska), years 1911 to 1915, enlisted men.*

[Ratio per 1,000 of mean strength.]

Year.	Primary syphilis.			Secondary syphilis.			Tertiary syphilis.			Hereditary syphilis.			Total.		
	Case rates.	Admission rates.	Noneffective rates.	Case rates.	Admission rates.	Noneffective rates.	Case rates.	Admission rates.	Noneffective rates.	Case rates.	Admission rates.	Noneffective rates.	Case rates.	Admission rates.	Noneffective rates.
1915....	2.86	2.86	0.15	11.53	11.53	0.67	2.39	2.39	0.35	0.06	0.06	0.01	17.24	17.24	1.22
1914....	3.10	3.10	.17	12.73	12.73	.63	2.25	2.25	.32	.05	.05	.02	18.53	18.53	1.15
1913....	2.72	2.72	.13	15.45	15.45	.73	1.90	1.90	.27	.02	.02	.01	20.99	20.99	1.17
1912....	3.89	3.89	.18	19.01	19.01	1.20	2.50	2.50	.31	.17	.17	.01	25.58	25.58	1.70
1911....	3.75	4.09	.26	28.66	35.54	2.14	3.64	4.29	.43	.33	.38	.02	36.37	44.30	2.82

TABLE NO. 16.—*Recruit depots, total number of admissions, venereal diseases, with ratios and mean strength, officers and enlisted men, years 1915, 1914, and 1913.*

Recruit depots.	1915			1914			1913		
	Admissions.		Mean strength.	Admissions.		Mean strength.	Admissions.		Mean strength.
	Total.	Ratio.		Total.	Ratio.		Total.	Ratio.	
Jefferson Barracks, Mo...	222	157.11	1,413	202	135.48	1,491	170	153.15	1,110
Fort McDowell, Cal......	104	119.40	871	97	94.36	1,028	58	74.45	779
Columbus Barracks, Ohio.	110	94.34	1,166	194	128.39	1,511	188	158.51	1,186
Fort Slocum, N. Y........	77	59.82	1,287	129	88.30	1,461	114	104.78	1,088
Fort Logan, Colo.........	32	56.04	571	76	116.92	650	77	131.85	584
Total...............	545	102.68	5,308	698	113.66	6,141	607	127.87	4,747

The admission rate for enlisted men in the United States is somewhat lower than for 1914, being 83.60 compared with 89.84 per 1,000.

The noneffective rate was considerably higher, being 3.99 per 1,000 for 1915 as against 1.15 in 1914, which may be accounted for (in view of a reduction in the admission rate) by the presence in hospital for a greater length of time of cases of syphilis, there being a decrease in the number of cases so diagnosed of 38 over 1914. For gonorrhea the number of cases is 71 more than last year, and in the local infection, chancroid, the increase is 218. In 1912 there was a large falling off in the number of secondary and tertiary cases of syphilis with a slight increase in the case rate for the primary cases. It will be noted from Table No. 15 that a like decrease has taken place in the number of cases of primary and secondary syphilis, while there is a slight increase in the rate for tertiary cases.

In comparing the figures for 1915 and 1914 with those for 1912 and 1913 and the preceding years it must be borne in mind that the diagnoses made prior to 1911 were determined without the aid of the Wassermann reaction. By reason of this many latent cases are now detected which were largely missed prior to 1911.

By reference to Table No. 12 it will be seen that the admission rate for the total American troops of the Army also was lower than for the year 1914, the rate being 107.71 as against 110.69, while the non-effective rate was but slightly higher, being 4.78 per 1,000 in 1915 as compared with 4.73 in 1914.

TABLE No. 17.—*Venereal diseases, officers and enlisted men, admissions and ratios per 1,000, for posts of more than 300 men, in the United States (excluding Alaska), 1914 and 1915.*

		1915			1914		
		Mean strength.	Admissions.		Admissions.		Relative standing on list.
			Total.	Ratio.	Total.	Ratio.	
1	Fort Sam Houston, Tex	1,293	217	167.83	179	163.32	3
2	Fort Baker, Cal	307	44	143.32	....	....	....
3	Fort Oglethorpe, Ga	1,098	155	141.17	117	265.31	1
4	Fort Bliss, Tex	823	112	136.09	129	191.96	2
5	Fort Lawton, Wash	460	62	134.78	41	93.39	15
6	Fort Screven, Ga	444	55	123.87	55	109.34	9
7	Presidio of San Francisco, Cal	1,092	130	119.05	123	98.48	12
8	Fort McIntosh, Tex	383	41	107.05	51	117.51	6
9	Fort Moultrie, S. C	397	41	103.27	41	87.42	17
10	Fort Sill, Okla	1,182	122	103.21	121	119.45	4
11	Presidio of Monterey, Cal	414	42	101.45	48	62.50	25
12	Vancouver Barracks, Wash	958	92	96.04	56	54.74	29
13	Fort Leavenworth, Kans	811	76	93.71	70	107.20	10
14	Fort Jay, N. Y	367	33	89.92	32	76.01	22
15	Fort Clark, Tex	534	48	89.89	....	....	....
16	Washington Barracks, D. C	508	43	84.65	83	114.48	8
17	Fort Myer, Va	694	56	80.69	75	106.84	11
	United States (total officers and enlisted men)	66,789	5,340	79.95	5,524	85.84	....
18	Fort McKinley, Me	560	41	73.21	72	114.83	7
19	Fort Riley, Kans	474	33	69.62	32	48.78	31
20	Fort Andrews, Mass	437	30	68.65	35	79.01	19
21	Fort Barrancas, Fla	637	43	67.50	39	63.31	24
22	Fort Monroe, Va	1,352	90	66.57	87	76.86	21
23	Fort Sheridan, Ill	393	26	66.16	32	96.10	13
24	Plattsburg Barracks, N. Y	766	50	65.28	65	83.33	18
25	Fort Ethan Allen, Vt	869	56	64.44	83	89.06	16
26	Fort Strong, Mass	470	28	59.57	27	58.70	28
27	Fort Worden, Wash	633	35	55.29	24	37.27	36
28	Madison Barracks, N. Y	641	35	54.60	36	59.90	26
29	Fort H. G. Wright, N. Y	683	37	54.17	40	59.88	27
30	Fort Adams, R. I	595	30	50.42	18	30.98	39
31	Fort Greble, R. I	356	17	47.75	30	94.94	14
32	Fort Totten, N. Y	566	27	47.71	56	77.46	20
33	Fort Terry, N. Y	681	31	45.52	28	41.73	35
34	Fort Rosecrans, Cal	510	23	45.10	....	....	....
35	Fort Huachuca, Ariz	875	39	44.57	20	41.75	34
36	Fort Winfield Scott, Cal	1,098	48	43.71	22	23.01	42
37	Fort Hancock, N. J	750	25	33.33	28	36.32	37
38	Fort Flagler, Wash	340	11	32.35	....	....	....
39	Fort Williams, Me	504	15	29.76	27	50.85	30
40	Fort Casey, Wash	341	10	29.33	7	22.58	43
41	Fort Howard, Md	317	9	28.39	33	70.97	23
42	West Point, N. Y	838	23	27.45	15	18.14	44
43	Fort Hamilton, N. Y	629	14	22.26	22	36.07	38
44	Fort Wadsworth, N. Y	365	8	21.92	....	....	....
45	Fort Stevens, Oreg	387	2	5.17	9	25.64	41

TABLE No. 18.—*Venereal diseases, Army, American troops, officers and enlisted men, by departments and divisions, year 1915.*

	Mean strength.			Cases.			Rates per 1,000 of mean strength.		
	Officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Total.
Army American troops	4,394	93,262	97,656	20	10,045	10,065	4.55	107.71	103.07
United States continental (excluding Alaska)	3,064	63,725	66,789	12	5,328	5,340	3.92	83.60	79.95
Eastern Department	958	19,145	20,103	3	1,341	1,344	....	70.04	66.86
Central Department	258	2,748	3,006	....	199	199	....	42.42	66.20
Southern Department (excluding troops on Mexican border)	230	5,073	5,303	....	588	588	....	115.91	110.88
Troops on Mexican border	596	14,239	14,835	6	1,130	1,136	10.07	79.36	76.58
Second division, Texas	328	6,895	7,223	2	785	787	6.10	113.85	108.96
Western Department	341	7,898	8,239	....	598	598	....	75.72	72.59
Independent stations	205	2,016	2,221	....	75	75	....	37.20	33.77
Recruit depots	106	5,202	5,308	....	545	545	....	104.77	102.68
General hospitals	42	509	551	1	67	68	23.81	131.63	123.41
Alaska	24	763	787	....	27	27	....	35.39	34.31
Panama Canal Zone	182	5,721	5,903	1	781	782	5.49	136.51	132.48
Hawaiian Department	304	8,572	8,876	1	849	850	3.29	99.04	95.76
China	43	1,335	1,378	....	673	673	....	504.12	488.39
Philippine Islands (American troops)	666	11,834	12,500	6	2,205	2,211	9.01	186.32	176.88
Army transports	73	1,312	1,385	....	182	182	....	138.72	131.41
Philippine Scouts	....	5,505	....	....	189	....	....	34.33	....
Porto Rican Regiment	38	681	719	....	61	61	....	89.57	84.84

Table No. 16 shows the rates of admission for three years of venereal disease at the five recruiting depots. With the exceptions of Jefferson Barracks and Fort McDowell, a marked decrease in the admission rates over 1914 and 1913 is noted. Fort Logan has the lowest rate for 1915, being a reduction of over one-half compared with the rate prevailing for 1914. Taking the five recruit depots as a whole, the total admission rate is lower for 1915, being 102.68, as compared with 113.66 in 1914 and 127.87 for 1913. Jefferson Barracks has the highest rate of any of the depots, 157.11 per 1,000 in 1915, as compared with 135.48 in 1914, with a rate of 119.40 in 1915 at Fort McDowell, as compared with 94.36 for 1914.

Table No. 17 gives the relative standing and rates with reference to venereal disease for 45 posts in the United States. The post having the highest rate for venereal disease is Fort Sam Houston, Tex., changing places with Fort Oglethorpe, being third and first, respectively, for 1914. The fact that Fort Sam Houston leads all other posts for venereal disease this year can be accounted for by the mobilization of a good portion of our troops on the southern border. But such facts seem only to extenuate, but not to excuse, the failure to lower the ratio of these preventable diseases.

The most marked improvement is shown at Fort Greble, R. I., where the admission rate was reduced from 94.94 in 1914 to 47.75 per 1,000 in 1915; where formerly Greble stood No. 14 on the list, this year it stands No. 31; Fort Howard, which last year stood No. 23 on the list, this year stands No. 41, while Fort Totten moved from No. 20 last year to No. 32 this year.

MALARIAL FEVERS.

The admission rate for malarial fever, officers and enlisted men, in the United States is slightly higher than for the year 1914, being 12.37 per 1,000, as compared with 10.74 in 1914, and with the exception of 1913 is lower than for the previous three years. The rate for 1913 was 8.62; that for 1912, 13.99; that for 1911, 14.35; and for 1910, 16.07.

The noneffective rate for 1915 was 0.27, as compared with 0.24 in 1914, 0.18 in 1913, 0.30 in 1912, and 0.35 per 1,000 in 1911.

No discharges, but 2 deaths, resulted from malarial fevers during the year. Chart R shows comparative rates for this disease for the entire command, including officers.

TABLE No. 19.—*Malarial infections, United States, continental (excluding Alaska), years 1911 to 1915, inclusive, officers and enlisted men.*

[Ratio per 1,000 of mean strength.]

Malarial fevers.	Admitted.					Noneffective.					Discharges.	Deaths.
	Total United States.	Officers.	Enlisted men.			Total United States.	Officers.	Enlisted men.				
			Total.	White.	Colored.			Total.	White.	Colored.		
Quartan and tertian:												
1915	9.25	5.22	9.44	9.61	5.33	0.20	0.22	0.20	0.20	0.09	......	......
1914	9.28	5.68	9.45	9.67	2.19	.18	.16	.18	.18	.09	......	......
1913	7.16	4.17	7.31	7.50	1.18	.14	.14	.13	.14	.01	......	......
1912	12.20	7.92	12.42	12.80	2.01	.24	.12	.24	.25	.04	......	......
1911	13.26	6.25	13.63	14.36	.68	.28	.08	.29	.30	.01	......	......
Estivo-autumnal:												
1915	1.87	.33	1.95	1.97	1.23	.04	.07	.04	.04	.04	......	0.03
1914	.71	2.00	.65	.67	......	.03	......	.02	.02	......	......	......
1913	.69	.96	.67	.69	......	.02	.02	.13	.14	.01	......	......
1912	.94	.66	.96	1.00	......	.03	.02	.24	.25	.04	......	......
1911	.88	.69	.89	.94	......	.04	.05	.29	.30	.01	......	......
Malaria cachexia and undetermined malarial fever:												
1915	1.24	1.63	1.23	1.27	......	.03	.10	.03	.03	......	......	......
1914	.75	2.00	.69	.71	......	.03	......	.04	.04	......	......	......
1913	.78	.32	.81	.64	6.49	.03	.00	.02	.02	.11	0.02	......
1912	.85	.99	.84	.77	2.41	.03	.03	.02	.02	.02	......	......
1911	.21	1.04	.16	.17	......	.02	.11	.02	.02	......	......	......
Total malarial diseases:												
1915	12.37	7.18	12.62	12.86	6.56	.27	.40	.27	.27	.13	......	.03
1914	10.74	9.68	10.79	11.05	2.19	.24	.37	.24	.24	.08	......	......
1913	8.62	5.45	8.79	8.82	7.67	.18	.16	.18	.18	.12	.02	......
1912	13.99	9.57	14.22	14.25	4.42	.29	.17	.30	.31	.06	......	......
1911	14.35	7.99	14.68	15.47	.68	.34	.24	.35	.36	.01	......	......

TABLE No. 20.—*The 10 posts of more than 200 (officers and enlisted men) in the United States, continental (excluding Alaska), having the highest admission rates for malarial diseases, year 1915, compared with 1914.*

[Ratio per 1,000 of mean strength.]

Posts.	Mean strength.		Malarial diseases, total ratio.	
	1915	1914	1915	1914
Fort Moultrie, S. C	397	469	73.05	8.53
Jefferson Barracks, Mo	1,413	1,491	37.51	22.13
Washington Barracks, D. C	508	725	33.46	73.10
Fort Myer, Va	694	702	27.38	28.49
Fort D. A. Russell, Wyo	264	178	26.52	....
Fort Sill, Okla	1,182	1,013	26.23	5.92
Fort Screven, Ga	444	503	22.52	13.92
Fort Leavenworth, Kans. (military prison)	272	258	22.06	27.13
Fort Sam Houston, Tex	1,293	1,096	17.79	24.64
Fort Caswell, N. C	290	329	17.24	21.28

From the above table it will be noted that Washington Barracks, D. C., which had an admission rate in 1914 of 73.10, this year shows but 33.46 per 1,000, a remarkable reduction, due to the vigorous antimosquito campaign that is being waged where mosquitoes are prevalent. The excessive rate shown for Fort Moultrie, S. C., which is No. 1 on the list, is not enviable when compared with that for 1914, 8.53 per 1,000.

TUBERCULOSIS.

The following tabulation shows for the total American Army, and separately for the different countries where the Army has been stationed continually, the case rate for tuberculosis (all forms) for enlisted men for the last seven years. In this tabulation all readmissions during each year have been eliminated, so that the actual occurrence of tuberculosis (all) is shown:

Tuberculosis (all), enlisted men, case rates only.

Year.	United States.	Philippine Islands.	Alaska.	Hawaii.	Transports.	Panama.	China.	Total.
1915	2.68	6.42	1.31	3.62	5.34	6.12	5.24	3.52
1914	2.69	7.31	1.09	3.01	2.85	2.49	6.69	3.35
1913	3.07	6.70	1.75	4.24	4.37	3.76	3.29	3.66
1912	3.25	5.02	4.18	2.07	2.74	....	....	3.49
1911	3.64	3.77	2.68	1.99	1.76	....	....	3.55
1910	3.34	5.46	1.85	4.10	.80	....	....	3.65
1909	4.53	5.06	3.76	2.96	3.00	....	....	4.53

The above tabulation shows that for the year 1915 the rate for tuberculosis in the United States is lower than for any previous year recorded, being 2.68, as compared with 2.69 per 1,000 for 1914. The general rate for the American Army was 3.52, which is slightly higher than for the year 1914. All of the places shown in the tabulation have higher rates than for the United States, with the exception of Alaska, the rate for which is 1.31 per 1,000, as compared with 1.09 for 1914. The rate for the United States, when compared with former years, is encouragingly low, while, with the exception of the Philippine Islands and China, the other places show an increased rate, all of which exceed that for the American Army.

The following tabulation shows for the total American Army, and for those parts stationed in the United States and the Philippine Islands, the rates for tuberculosis (all) for discharges for disability, for deaths, and for noneffectiveness for the last four years:

	Year.	Discharged for disability.	Deaths.	Noneffective.
Army, American troops	1915	1.79	0.33	1.80
	1914	2.07	.47	1.77
	1913	2.26	.49	1.94
	1912	1.56	.31	1.40
American troops, United States	1915	1.67	.28	2.33
	1914	2.10	.47	2.23
	1913	2.16	.40	2.34
	1912	1.67	.27	1.65
American troops, Philippine Islands	1915	3.28	.50	.50
	1914	3.41	.28	.60
	1913	3.95	.79	.56
	1912	1.46	.57	.53

From a study of Table No. 21, giving the occurrence of tuberculosis at Army posts in the United States, Vancouver Barracks, Wash., after dropping down on the list to one case during 1914, has, as in the years 1913, 1912, and 1911, more cases of tuberculosis than any other station, with the single exception of Sam Houston, Tex., both having seven cases recorded for the year 1915.

Four more cases of this disease occurred than during the year 1914, although a reduction over 1913 of the same number of cases.

TABLE No. 21.—*Tuberculosis (all) at Army stations, United States, continental (excluding Alaska), 1915, compared with 1914 and 1913, officers and enlisted men.*

	Admissions.					
	1915		1914		1913	
	Number.	Ratio per 1,000 of mean strength.	Number.	Ratio per 1,000 of mean strength.	Number.	Ratio per 1,000 of mean strength.
Vancouver Barracks, Wash	7	7.31	1	0.98	10	7.73
Fort Sam Houston, Tex	7	5.41	5	4.56	4	3.21
Fort H. G. Wright, N. Y	5	7.32	3	4.49	2	2.95
Fort Myer, Va	5	7.20	2	2.85	1	1.72
Fort Bliss, Tex	5	6.08	4	5.95	1	1.40
Letterman General Hospital, California	4	21.39	5	26.60	2	10.87
Fort McDowell, Cal	4	4.59	1	.97	3	3.85
Presidio of San Francisco, Cal	4	3.66	8	6.41	4	2.15
Columbus Barracks, Ohio	4	3.43	5	3.31	5	4.22
Fort Slocum, N. Y	4	3.11	3	2.05	5	4.60
Jefferson Barracks, Mo	4	2.83	2	1.34	4	3.60
Fort Ontario, N. Y	3	12.88	....	....	1	3.65
Washington Barracks, D. C	3	5.91	....	....	2	2.97
Fort Adams, R. I	3	5.04	....	....	1	1.82
Plattsburg Barracks, N. Y	3	3.92	2	2.56	3	3.84
Fort Winfield Scott, Cal	3	2.73	....	....	2	2.15
Fort Monroe, Va	3	2.22	2	1.77	3	2.70
Walter Reed General Hospital, District of Columbia	2	14.81	6	42.86	3	32.26
General Hospital, Fort Bayard, N. Mex	2	12.82	3	19.11	2	13.16
Fort Baker, Cal	2	6.51	3	11.76	1	3.39
Fort Sheridan, Ill	2	5.09	5	15.02	1	2.28
Fort Riley, Kans	2	4.22	3	4.57	1	.76
Fort Logan, Colo	2	3.50	3	4.62	1	1.71
Fort Hamilton, N. Y	2	3.18	2	3.28	4	7.30
Fort Worden, Wash	2	3.16	5	7.76	4	2.73
Fort Barrancas, Fla	2	3.14	1	1.62	....	....
Madison Barracks, N. Y	2	3.12	2	3.33	....	....
Fort Leavenworth, Kans	2	2.47	....	....	5	4.96
Fort Ethan Allen, Vt	2	2.30	1	1.07	3	4.62
Fort Wayne, Mich	1	58.82	....	....	....	....
General Hospital, Hot Springs, Ark	1	13.70	1	14.71	2	34.48
Fort Hunt, Va	1	7.87	....	....	1	8.85
Fort Mott, N. J	1	6.94	....	....	....	....
Fort Washington, Md	1	6.94	....	....	....	....
Fort Constitution, N. H	1	6.58	1	7.14	....	....
Fort Crockett, Tex	1	5.15	....	....	....	....
Fort Huachuca, Ariz	1	1.14	5	10.44	1	1.83
Fort Stevens, Oreg	....	....	4	11.40	1	2.29
Fort Niagara, N. Y	....	....	3	10.56	2	7.22
Fort McIntosh, Tex	1	2.61	3	6.91	4	10.50
Fort Moultrie, S. C	....	....	3	6.40	1	2.15
Fort McKinley, Me	....	....	3	4.78	....	....
Presidio of Monterey, Cal	1	2.42	3	3.91	4	3.54
Fort Hancock, N. J	1	1.33	3	3.89	2	2.76
Fort Sill, Okla	1	.85	3	2.96	1	1.03
9 stations not included above had 1 case each in 1915	19	....	....	....	....	....
stations not included above had 2 cases each in 1914	....	....	8	....	....	....
3 stations not included above had 1 case each in 1914	....	....	13	....	....	....
stations not included above had 2 cases each in 1913	....	....	....	....	14	....
3 stations not included above had 1 case each in 1913	....	....	....	....	23	....
Field miscellaneous, etc	53	....	45	....	49	....
Total	179	2.68	175	2.72	183	3.07

TABLE No. 22.—*Occurrence of tuberculosis (all) among American troops, Army, year 1915, by years of service, enlisted men.*

	Years of service.						Total.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth and over.	
United States, continental (excluding Alaska):							
Mean strength							63,725
Admitted	48	31	17	22	10	43	171
Ratio per 1,000 of mean strength							2.68
Duty	5	2		4	1	2	14
Died	5	3			3	5	16
Discharged on certificate of disability	18	4	5	4	2	5	38
Otherwise	6	1	2			1	10
Remaining Dec. 31, 1915	14	21	10	14	4	30	93
Alaska:							
Mean strength							763
Admitted	1						1
Ratio per 1,000 of mean strength							1.31
Remaining Dec. 31, 1915	1						1
Philippines:							
Mean strength							11,834
Admitted	39	13	8	3	3	10	76
Ratio per 1,000 of mean strength							6.42
Duty	1	3				1	5
Died	4					2	6
Discharged on certificate of disability	19	2	2	1			24
Otherwise	1	1	2				4
Remaining Dec. 31, 1915	14	7	4	2	3	7	37
Hawaii:							
Mean strength							8,572
Admitted	10	9	8	1	1	2	31
Ratio per 1,000 of mean strength							3.62
Duty		1	1	1			3
Died			1				1
Discharged on certificate of disability		2				1	3
Remaining Dec. 31, 1915	10	6	6		1	1	24
Canal Zone, Panama:							
Mean strength							5,721
Admitted	10	7	6	3	1	8	35
Ratio per 1,000 of mean strength							6.12
Duty		1	1	1		1	4
Died	1	1					2
Discharged on certificate of disability		1			1	1	3
Remaining Dec. 31, 1915	9	4	5	2		6	26
China:							
Mean strength							1,335
Admitted	4	2				1	7
Ratio per 1,000 of mean strength							5.24
Duty	1						1
Died	1	1					2
Otherwise		1					1
Remaining Dec. 31, 1915	2					1	3
Transports:							
Mean strength							1,312
Admitted	4			1		2	7
Ratio per 1,000 of mean strength							5.34
Discharged on certificate of disability	4			1		1	6
Remaining Dec. 31, 1915						1	1
Total:							
Mean strength							93,26
Admitted	116	62	39	30	15	66	32
Ratio per 1,000 of mean strength							3.5
Duty	7	7	2	6	1	4	2
Died	11	5	1		3	7	2
Discharged on certificate of disability	41	9	7	6	3	8	7
Otherwise	7	3	4			1	1
Remaining Dec. 31, 1915	50	38	25	18	8	46	18

TABLE NO. 23.—*Undetermined fevers, 1915, by countries, officers and enlisted men, including Philippine Scouts and Porto Rican troops.*

Diseases.	United States (continental excluding Alaska.	Alaska.	Hawaii.	Philippine Islands.	Canal Zone, Panama.	China.	Porto Rico.	Army transports.	Total.
Febricula	25	....	5	27	....	....	2	....	59
Fever, simple continued	8	....	5	33	....	1	....	....	47
Fever, type undetermined	72	1	1	30	2	11	3	....	120
Ephemeral fever	5	....	....	....	....	....	....	....	5
Total	110	1	11	90	2	12	5	....	231
Ratio per 1,000 of mean strength	1.65	1.27	1.24	5.00	0.34	8.71	6.95	....	2.22

From the above table it will be noted that the admission rate for these fevers in the United States was 1.65 per 1,000 of mean strength. The same rate for 1914 was 1.49, that for 1913 was 2.65, and for 1912, 1.94 per 1,000. China has the highest admission rate for this class of fevers, 8.71 per 1,000; Porto Rico comes next with 6.95 per 1,000. The rate for the United States alone is lower than the total rate for these fevers. It might be well to again state, as in previous reports that in questions of doubt, procedures are used in the laboratory diagnosis of typhoid and paratyphoid fevers so as to exclude any possibility of overlooking these two diseases.

MENTAL ALIENATION (ENLISTED MEN).

It is impracticable to compare the admission rate for this class of disturbances with the rate for diseases formerly classified and published under the term "insanity." The diseases included under the term "mental alienation" used in the present nomenclature, which was put into use January 1, 1912, include several conditions not taken into consideration under the term insanity, such as defective mental development, constitutional psychopathic state, hypochondriasis, and nostalgia. The case admission rate for mental alienation (all) for 1915 was 3.04 per 1,000, and the discharge rate 2.54, as compared with 3.83 per 1,000 for the admission rate and 3.02 for discharge rate during the year 1914. The admission and discharge rates for the entire Army for 1915 were 3.84 and 3.30 per 1,000, respectively.

ALCOHOLISM.

The admission rate for alcoholism in the United States for the year 1915 was 13.07 per 1,000, which is lower than for the preceding year, when it was 13.46. It is exceedingly gratifying to note that there has been a steady decrease in this rate since 1907, when the rate was 36.09, before which year there was a steady increase for eight years. The rate for 1915 is the lowest on record in the Army since the year 1870. As it has been stated before, the rates given are not representative of the true amount of intemperance existing in the Army, but as they are all calculated from similar data, i. e., the number of cases in which medical assistance intervenes, they are useful as ndices of alcoholic excesses. There can be no doubt but that this remarkable decrease in the rates is properly attributable to the effect produced by the act of Congress in stopping the pay of officers and enlisted men when incapacitated for duty because of sickness due to drug addiction, alcoholism, or other misconduct.

Smallpox, 1915.

Rank and organization.	Age.	Station.	Date taken sick.	Date of successful vaccination.	Date of unsuccessful vaccination.	Disposition.	Length of service.	Date of enlistment.	Probable source of infection.	Previous attack.	Remarks.
Private, Company L, First Cavalry.	19	San Diego, Cal..	1915. Feb. 3	Oct. 26, 1914, Jefferson Barracks, Mo.	Feb. 3, 1915.....	Duty, Mar. 13, 1915.	3 months..	Oct. 26, 1914	From Mexican at San Diego, Cal.	None....	
Sergeant, Battery B, Fifth Field Artillery.	28	Fort Sill, Okla..	Mar. 2	Jan. 2, 1908, Columbus Barracks, Ohio.	Jan. 2, 1911, Presidio of San Francisco, Cal.	Duty, Mar. 22, 1915.	7 years....	Reenlisted Jan. 2, 1914.	Unknown.....	...do.....	No record of vaccination on reenlistment.
Private, Company A, Nineteenth Infantry.	21	Cantonment hospital, Galveston, Tex.	July 4	May 11, 1915, Jefferson Barracks, Mo.	1912 and 1914; no scars.	Duty, July 29, 1915.	2 months..	May 11, 1915	St. Louis, Mo..	Yes.....	Had smallpox at age of 6 years; soldier's statement.
Private, Ninety-fifth Company, Coast Artillery Corps.	25	Fort Mills, P. I..	Oct. 10	May 16, 1913, Jefferson Barracks, Mo.	None...........	Duty, Nov. 8, 1915.	2½ years...	May 16, 1913	Detailed on mine planter; natives.	None....	Came in contact with native while detailed on mine planter.
Private, Company B, Porto Rican Regiment of Infantry.	29	San Juan, P. R..	Apr. 21	July 18, 1912, San Juan, P. R.	1898 and 1909; June, 1907; no result.	Duty, June 19, 1915.	7¾ years...	July 18, 1912	His laundress had smallpox, March, 1915.	Yes.....	Has two vaccination scars.

SMALLPOX.

Three cases of smallpox occurred within the United States proper during the year, making an admission rate of 0.05, with no deaths.

MEASLES.

During the year 1915, 555 cases of measles occurred in the Army in the United States, with 20 deaths and 8 discharges. In 1914 there were 448 cases, with 8 deaths and 1 discharge.

An epidemic during January, February, March, April, and May at Jefferson Barracks, Mo., resulted in 147 cases being reported, while at Columbus Barracks, Ohio, during February, 60 admissions for measles are recorded, with 6 and 10 deaths, respectively. Of the 147 cases at Jefferson Barracks, 56 occurred during the month of January and 50 during the month of March. The depots having the next highest number of admissions for the year were Fort McDowell, Cal., with 27 cases and no deaths, and Fort Logan, Colo., with 26 cases and 1 death. The mean strengths during the year at the above-mentioned recruit depots were: Jefferson Barracks, 1,391; Columbus Barracks, 1,143; Fort McDowell, 854; and Fort Logan, 553.

The diversion of accepted applicants to other stations resulted in the disease assuming no greater proportions than shown at Columbus Barracks. With the advent of milder weather the change in habitat from the barracks to out-of-door life usually marks a decline in the incidence of the disease, which would tend to bear out the contention that crowding is a very material factor in the spread of this disease.

This office renews its recommendation that either additional barrack room be provided or that the number of accepted applicants sent to the recruit depots be curtailed, in order that an epidemic such as threatened at Columbus and Jefferson Barracks might be averted. The continuance of an epidemic is in the main attributable to contact of nonimmunes with infected cases before the latter have shown any symptoms. That the death rate was not higher for the year 1915 is directly due to the response on the part of The Adjutant General to recommendations of this office for the removal to other quarters of the majority of the personnel before the disease had assumed greater proportions than the figures above given would indicate.

EPIDEMIC POLIOMYELITIS.

No cases of this disease occurred among soldiers or civilian employees of the Army or among the families resident in the various garrisons. During the past year, however, poliomyelitis appeared in the vicinity of several of the larger military reservations in the astern United States, notably at Highland Falls, N. Y., immediately adjoining the United States Military Academy Reservation at West Point, N. Y. Nineteen cases with five deaths occurred. Stringent quarantine measures were promptly and successfully put in operation by the academy authorities upon the recommendation of the surgeon. These measures were as follows:

> The following quarantine regulations with reference to poliomyelitis are established:
>
> 1. Children under 16 years of age residing at West Point will not be permitted to eave the reservation. Children under 16 years of age residing elsewhere will not be ermitted to enter the reservation.
>
> 2. All general pleasure travel to and from West Point is discontinued.
>
> 3. Guests of individuals residing at West Point and guests of the hotel to be author-.ed to visit the reservation by permit only. Upon arrival at West Point they will be held pending investigation and issuance of permit if warranted.

4. Travel to and from West Point on business to be by permit only. Those coming to West Point will be held at point of entrance until necessary investigation is made and permit issued.

5. All soldiers of the garrison at West Point will be quartered on reservation and will not be allowed to leave the reservation during the continuance of the quarantine.

6. Classified civilian employees to be permitted to enter and leave the reservation by permit only.

7. Employees of the West Point Army mess and cadet mess will, as far as practicable, be quartered on the reservation, and others not so quartered will enter and leave the reservation by permit only.

8. Tailors and similar employees of the cadet store will enter the reservation at the railroad station or south gate and will proceed directly to the cadet store, and when through with their work at that place will leave the reservation by the most direct route.

9. All servants employed on the reservation will be required to live thereon and will not be permitted to pass back and forth from the reservation.

10. Laundresses will assemble at the south gate at the time specified by the officer in charge of the cadet laundry and will there be transported by wagons to the laundry. Upon completion of their work at the laundry, they will be transported back to the south gate. They will not be permitted to pass back and forth on foot through the reservation.

11. General laborers employed under the quartermaster will assemble at the south gate and be conducted by a noncommissioned officer to their work. Upon completion of their work they will again be assembled and conducted back to the south gate.

12. The vending of food products of any kind on the reservation is prohibited. Vegetable, fruit, bakery, and butcher wagons will not be permitted to enter the reservation.

13. In all cases not covered by the above, entrance to and departure from the reservation will be by special permit only, to be issued from these headquarters.

14. All persons residing on the reservation or who may be employed on the reservation will at once notify the surgeon of any suspicious case of illness occurring in their families or in the same house in which they reside.

15. The above measures are adopted as necessary for the health of those resident or employed at West Point.

CEREBROSPINAL MENINGITIS.

Twenty-three cases of this disease, with 9 deaths, occurred during the year 1915 in the United States. In 1914 there were 14 case with 5 deaths.

INFLUENCE OF STATION.

The posts having the highest admission rates, from all causes, were Forts D. A. Russell, Wyo., with a rate of 1,303.03; Caswell, N. C. with a rate of 955.17; George Wright, Wash., 943.61; Leavenworth Kans., 930.95; and Myer, Va., 880.40.

The posts having the highest noneffective rate for the year 191 were: Forts Bliss, Tex.; Sam Houston, Tex.; D. A. Russell, Wyo. Huachuca, Ariz.; and Sheridan, Ill., in the order named. The rate from all causes were 95.24, 77.63, 37.86, 34.91, and 25.43 per 1,000 respectively. The average number of days' treatment for each cas was as follows: Fort Bliss, 43.68; Fort Sam Houston, 35.68; For D. A. Russell, 10.60; Fort Huachuca, 39.12; and Fort Sheridan, 11.6

The five posts having the lowest admission rate, from all causes during the year, were: Forts Casey, Wash., 190.62; Yellowston Wyo., 261.90; Stevens, Oreg., 294.57; Winfield Scott, Cal., 330.6 and West Point, N. Y., with 343.68 per 1,000.

The posts having the lowest noneffective rates, from all causes, wit their rates, were: Forts Preble, Me., 3.96; Hamilton, N. Y., 5.9 Yellowstone, Wyo., 6.06; West Point, N. Y., 7.16; and Alcatra

Island, Cal., 8.63 per 1,000. The average number of days' treatment for each case was: 4.15, 5.53, 8.44, 7.60, and 7.90, respectively.

Of the recruiting depots Fort Slocum, N. Y., had the highest admission rate from all causes, 1,341.10, and Jefferson Barracks, Mo., the lowest, 815.99 per 1,000; the latter depot had the highest average number of days' treatment for each case, 15.52. Fort Slocum had the highest noneffective rate from all causes, 38.64 per 1,000, and Fort McDowell, Cal., the lowest, 11.12. The highest death rate occurred at Jefferson Barracks, Mo., being 14.86 per 1,000, and the lowest at Fort McDowell, Cal., 1.15.

The Western Department, as last year, had the lowest admission rate, 556.47 per 1,000, as compared with 437.09 for 1914, with the exception of the independent stations, which had a rate of 508.43 per 1,000, as compared with 579.81 per 1,000 for 1914. A considerable increase is noted in the Eastern Department, whose rate for 1915 was 654.32, as compared with 567.44 per 1,000 for 1914. The rate for the recruit depots, while still high, is slightly lower than for 1914, being 1,070.17 for 1915, as compared with 1,087.43 per 1,000 for 1914.

The independent stations had the lowest noneffective rate, 10.46 per 1,000, for the year 1915, as compared with 11.18 for the Western Department, 12.72 for the Mexican border, and 16.21 for the Eastern Department.

The Central Department had the lowest death rate, 2.29 per 1,000 for 1915, as compared with 7.97 for 1914, and the Western and Eastern Departments and the Mexican border next in order with 6.26, 6.28, and 6.33 per 1,000, respectively.

Tables Nos. 24 and 25 show the posts having the highest and the lowest ratios of admission and noneffectiveness in the United States as a whole.

INFLUENCE OF RACE.

The colored troops (enlisted) had higher rates than the white for noneffective and discharges, being 31.26 and 22.96, as compared with 25.52 and 13.23 per 1,000, respectively, for 1915. The respective rates for 1914 were 33.73 and 27.90 as compared with 23.05 and 14.42. The admission rate for white troops was higher than for the colored, being 708.51 as compared with 590.81.

For venereal diseases the admission rate for the white troops was 34.08, and for the colored 71.75 per 1,000 for 1915; for alcoholism the rate for the white troops was 13.49, and for the colored, 2.46; for tuberculosis (all kinds) for the white was 2.72 and for the colored, 1.64; for bronchitis the rate for white was 37.07, and for colored, 33.21; for diarrhea and enteritis the rate for white was 32.12, and for colored, 35.26; and for tonsilitis, acute follicular, the rate for white was 52.18, and for colored, 21.32.

The relative prevalence of the other diseases in the two races with comparisons are shown in Table No. 7.

Chart R.—United States. Officers and men.

[Admission rates for typhoid fever, undetermined fever, and malarial fevers, years 1906–1915.]

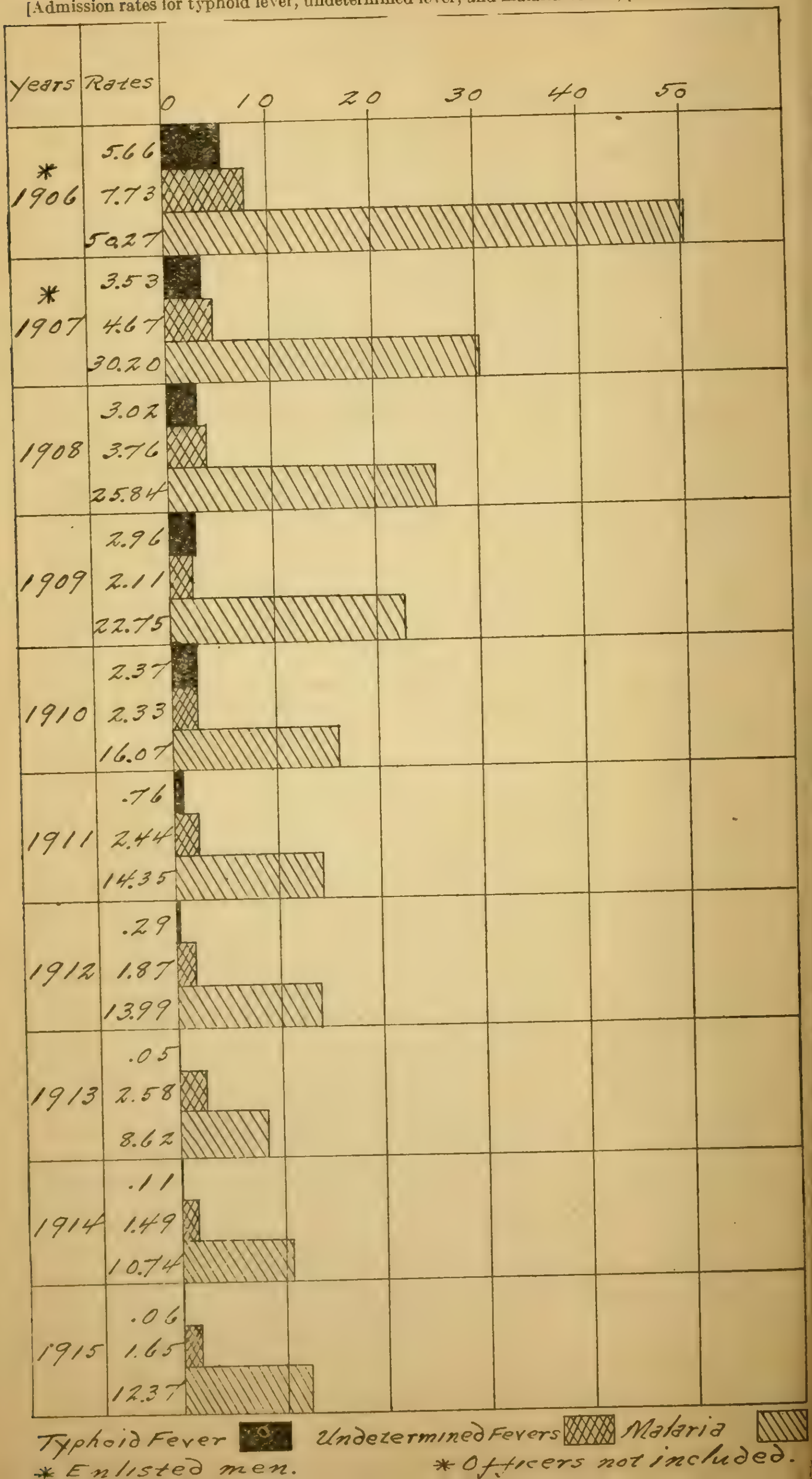
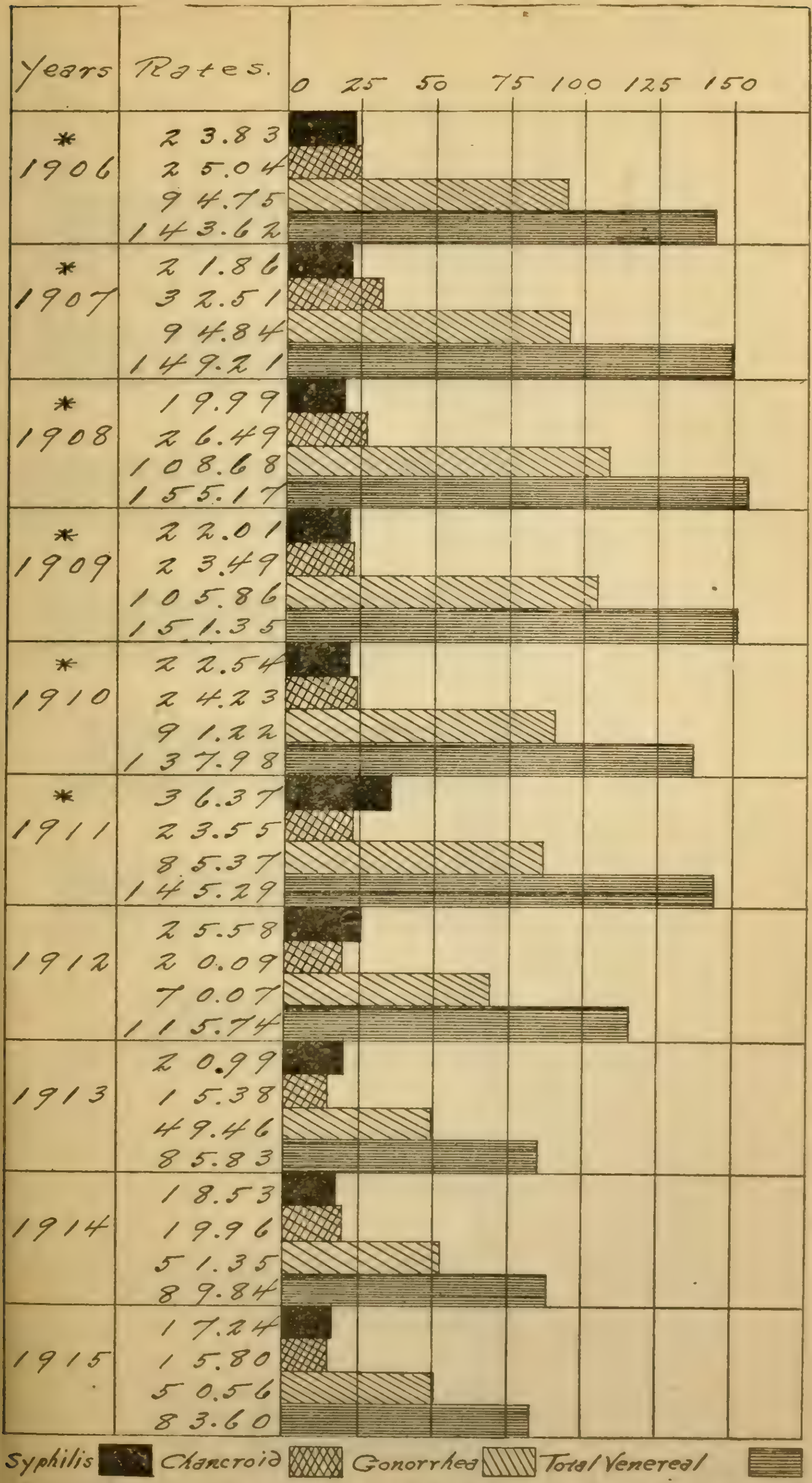


Chart S.—United States. Enlisted men.

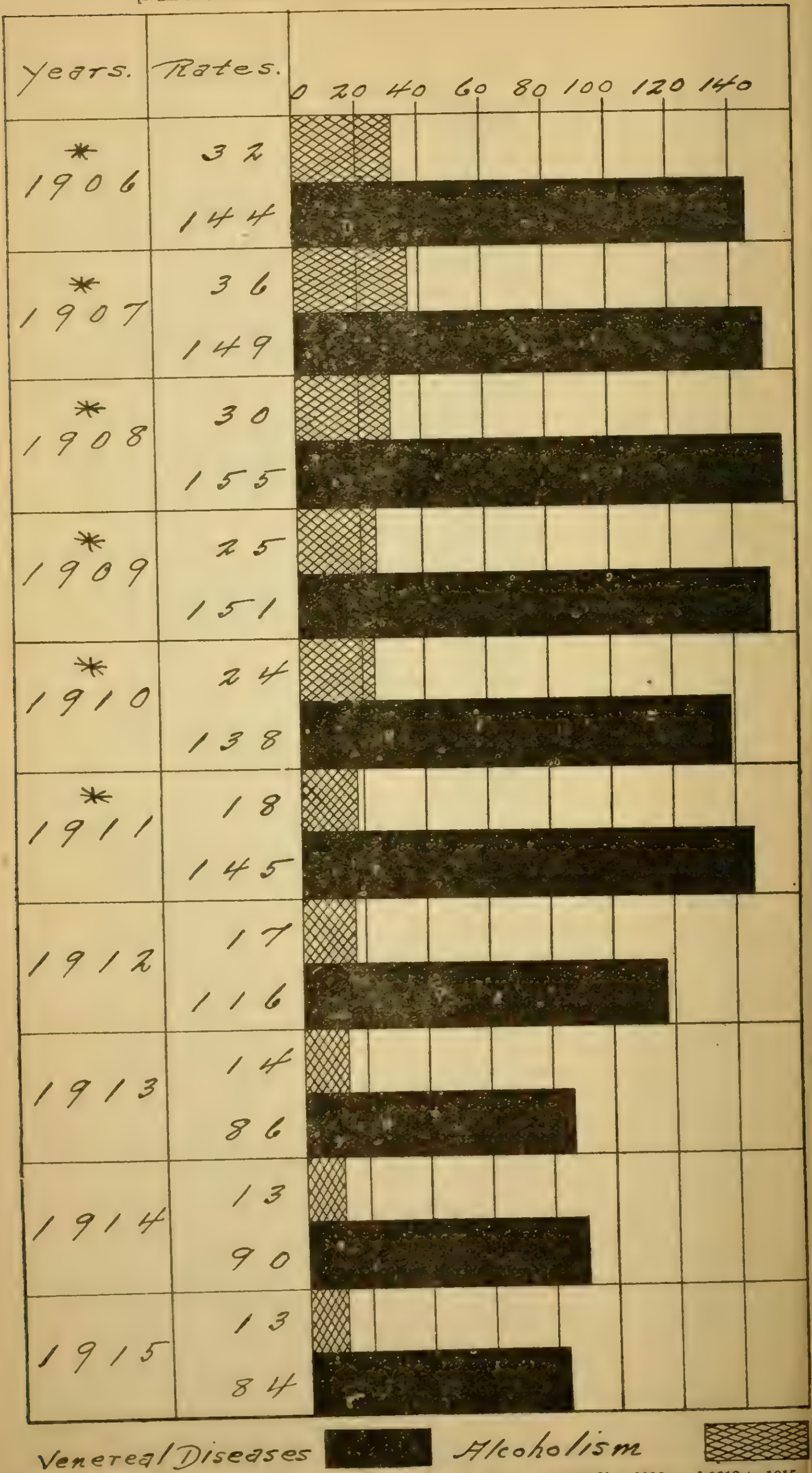
[Admission rates for syphilis, chancroid, gonorrhea, and total venereal, years 1906-1915.]



* Readmitted cases deducted to correspond with figures for years preceding 1906, and 1912 to 1915.

Chart T.—United States. Enlisted men.

[Admission rates for venereal diseases and alcoholism, years 1906–1915.]



* Readmitted cases deducted to correspond with figures for years preceding 1906, and 1912 to 1915.

Chart U.—United States. Officers and men.

[Admission and noneffective rates for malaril fevers, years 1906-1915.]

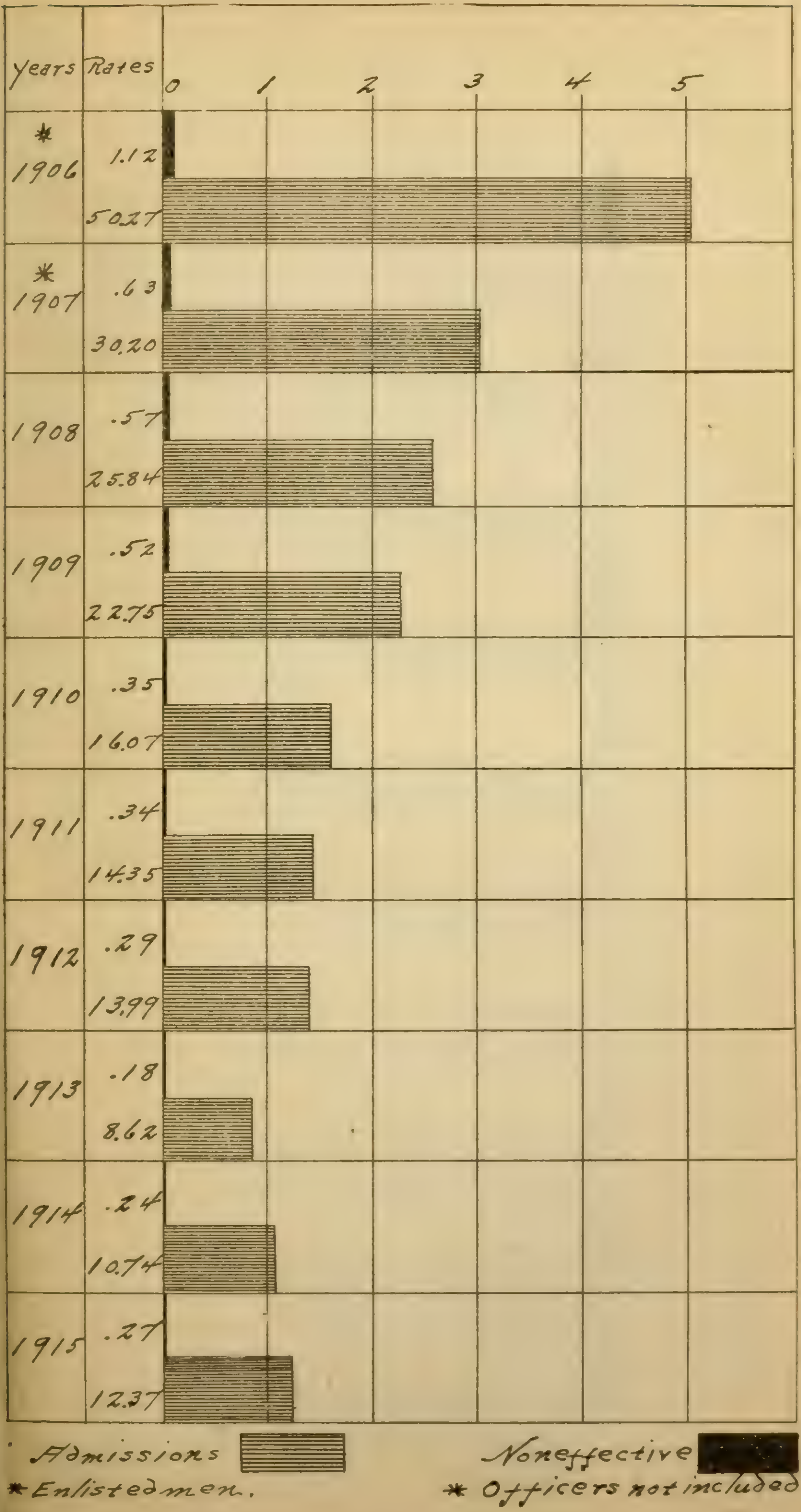


Chart V.—Army. Officers and American and native troops.

[Admission and death rates for tuberculosis, years 1906–1915.]

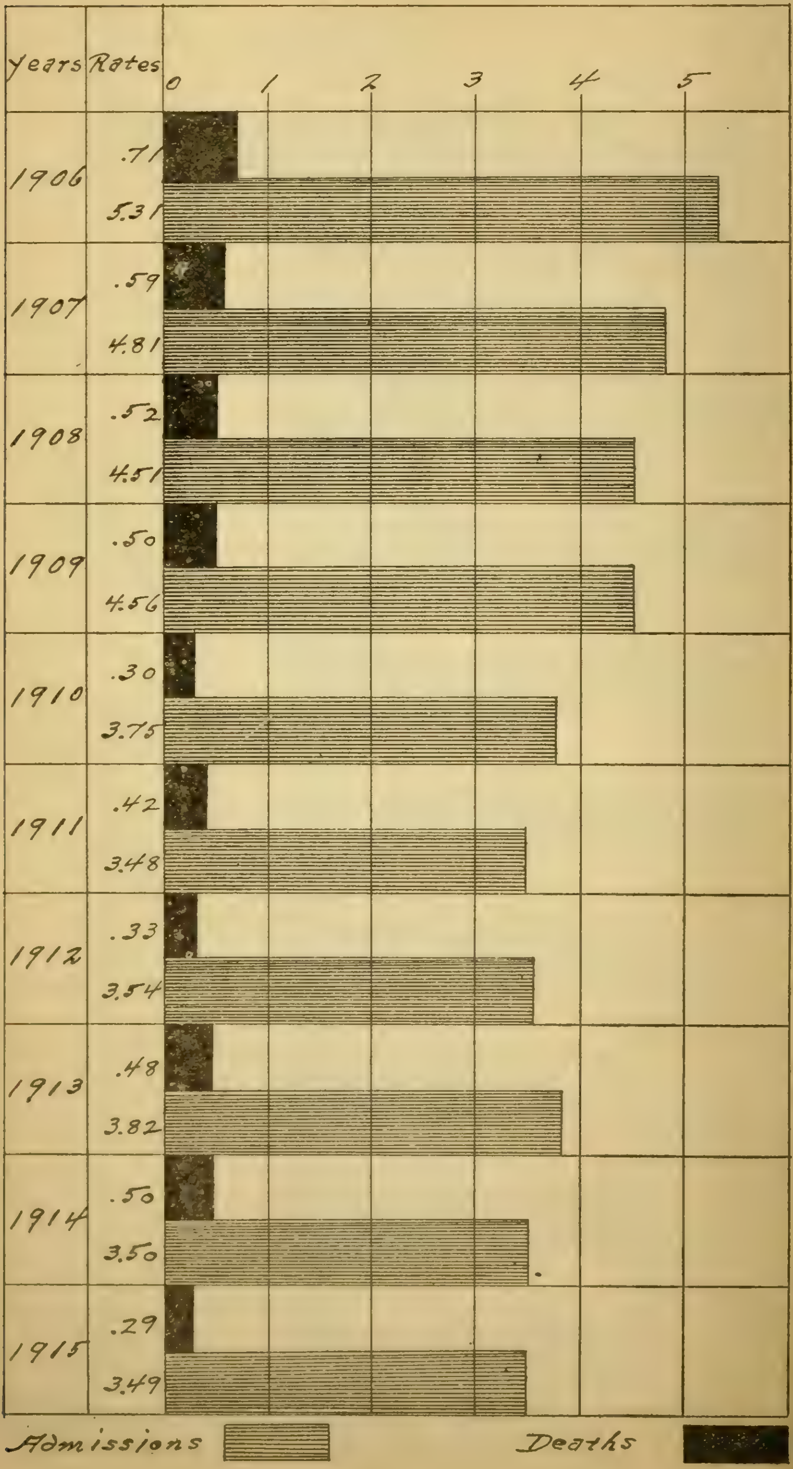


TABLE NO. 24.—*Posts of the United States having the highest admissions and noneffective rates per 1,000 of mean strength among those having a total strength of over 200 officers and men, year 1915.*

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective rate.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Posts in order of highest admission rates from all causes:																	
Fort D. A. Russell, Wyo	264	1,303.03	916.67	19.69	19.69	7.58	....	27.27	19.69	37.86	36.79	23.62	22.65	13.82	10.60	8.62	9.40
Fort Caswell, N. C	290	955.17	703.45	10.75	10.75	....	....	10.75	10.75	16.19	15.88	11.84	11.70	5.91	6.19	4.31	6.14
Fort Geo. Wright, Wash	266	943.61	635.34	....	....	7.52	3.76	7.52	3.76	20.45	17.45	13.10	10.87	7.46	7.91	4.78	7.53
Fort Leavenworth, Kans	811	930.95	527.34	13.01	8.67	1.23	1.23	14.24	9.90	24.03	15.29	12.26	8.25	8.77	9.42	4.47	8.03
Fort Myer, Va	694	880.40	585.01	5.98	2.99	1.44	....	7.42	2.99	22.68	21.43	12.17	11.36	8.28	9.40	4.44	7.59
Posts in order of highest admission rates, excluding venereal diseases, injuries, etc.:																	
Fort D. A. Russell, Wyo	264	1,303.03	916.67	19.69	19.69	7.58	....	27.27	19.69	37.86	36.79	23.62	22.65	13.82	10.60	8.62	9.40
Fort Caswell, N. C	290	955.17	703.45	10.75	10.75	....	....	10.75	10.75	16.19	15.88	11.84	11.70	5.91	6.19	4.31	6.14
Fort H. G. Wright, N. Y	683	844.80	642.75	12.07	12.07	....	....	12.07	12.07	22.27	20.07	15.85	14.82	8.13	9.62	5.79	9.00
Fort Geo. Wright, Wash	266	943.61	635.34	....	....	7.52	3.76	7.52	3.76	20.45	17.45	13.10	10.87	7.46	7.91	4.78	7.53
Fort Greble, R. I	356	825.84	598.31	5.75	2.87	....	....	5.75	2.87	19.90	17.92	13.34	11.72	7.26	8.80	4.87	8.14
Posts in order of highest noneffective rates from all causes:																	
Fort Bliss, Tex	823	795.87	490.89	48.16	35.49	17.01	9.72	65.17	45.21	95.24	94.35	56.68	56.36	34.76	43.68	20.69	42.14
Fort Sam Houston, Tex	1,293	794.28	464.81	132.42	88.28	11.60	9.28	144.02	97.56	77.63	75.24	44.61	43.18	28.33	35.68	16.28	35.03
Fort D. A. Russell, Wyo	264	1,303.03	916.67	19.69	19.69	7.58	....	27.27	19.69	37.86	36.79	23.62	22.65	13.82	10.60	8.62	9.40
Fort Huachuca, Ariz	875	325.71	182.86	15.55	14.35	11.43	6.86	26.98	21.21	34.91	34.01	19.44	19.00	12.74	39.12	7.10	38.81
Fort Sheridan, Ill	393	796.44	559.80	24.13	21.45	5.09	....	29.22	21.45	25.43	23.79	13.78	12.45	9.28	11.65	5.03	8.98
Posts in order of highest noneffective rates, excluding venereal diseases, injuries, etc.:																	
Fort Bliss, Tex	823	795.87	490.89	48.16	35.49	17.01	9.72	65.17	45.21	95.24	94.35	56.85	14.82	8.13	9.62	5.79	9.00
Fort Sam Houston, Tex	1,293	794.28	464.81	132.42	88.28	11.60	9.28	144.02	97.56	77.63	75.24	44.61	43.18	28.33	35.68	16.28	35.03
Fort D. A. Russell, Wyo	264	1,303.03	916.67	19.69	19.69	7.58	....	27.27	19.69	37.86	36.79	23.62	22.65	13.82	10.60	8.62	9.40
Fort Huachuca, Ariz	875	325.71	182.86	15.15	14.35	11.43	6.86	26.98	21.21	34.91	34.01	19.44	19.00	12.74	39.12	7.10	38.81
Fort Jay, N. Y	367	566.76	403.27	29.94	29.94	5.45	2.72	35.39	32.66	23.31	22.48	17.09	16.39	8.51	15.01	6.24	15.47

TABLE NO. 25.—*Posts of the United States having the lowest admission and noneffective rates per 1,000 of mean strength among all those having a total strength of over 200 officers and men, year 1915.*

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective rate.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Posts in order of lowest admission rates from all causes:																	
Fort Casey, Wash	341	190.62	117.30	18.02	12.01	5.87	2.93	23.89	14.94	9.67	9.55	4.70	4.69	3.53	18.52	1.72	14.62
Fort Yellowstone, Wyo	252	261.90	154.76							6.06	5.68	3.62	3.38	2.21	8.44	1.32	8.54
Fort Stevens, Oreg	387	294.57	178.29	2.69		2.58		5.27		8.84	6.84	3.67	3.22	3.23	10.96	1.34	7.51
Fort Winfield Scott [1]	1,098	330.60	210.38			3.64	1.82	3.64	1.82	1.58	(1)	.56	(1)	.58	1.74	.20	.97
West Point, N. Y	838	343.68	231.50	2.79	2.79	2.39	1.19	5.18	3.98	7.16	6.11	3.88	3.37	2.61	7.60	1.42	6.12
Posts in order of lowest admission rates, excluding injuries, etc.:																	
Fort Casey, Wash	341	190.62	117.30	18.02	12.01	5.87	2.93	23.89	14.94	9.67	9.55	4.70	4.69	3.53	18.52	1.72	14.62
Fort Preble, Me	224	348.22	120.54							3.96	3.40	.82	.59	1.45	4.15	.30	2.48
Fort Yellowstone, Wyo	252	261.90	154.76							6.06	5.68	3.62	3.38	2.21	8.44	1.32	8.54
Fort Stevens, Oreg	387	294.57	178.29	2.69		2.58		5.27		8.84	6.84	3.67	3.22	3.23	10.96	1.34	7.51
Fort Winfield Scott, Cal. [1]	1,098	330.60	210.38			3.64	1.82	3.64	1.82	1.58	(1)	.56	(1)	.58	1.74	.20	.97
Posts in order of lowest noneffective rates from all causes:																	
Fort Preble, Me	224	348.22	120.54							3.96	3.40	.82	.59	1.45	4.15	.30	2.48
Fort Hamilton, N. Y	629	389.51	292.53	6.54	4.90	4.77	3.18	11.31	8.08	5.90	5.46	4.07	3.69	2.15	5.53	1.49	5.08
Fort Yellowstone, Wyo	252	261.90	154.76							6.06	5.68	3.62	3.38	2.21	8.44	1.32	8.54
West Point, N. Y	838	343.68	231.50	2.79	2.79	2.39	1.19	5.18	3.98	7.16	6.11	3.88	3.37	2.61	7.60	1.42	6.12
Alcatraz Island, Cal	236	398.30	258.47			4.24		4.24		8.63	7.05	5.37	4.13	3.15	7.90	1.96	7.59

Posts in order of lowest noneffective rates excluding injuries, etc.:																	
Fort Preble, Me	224	348.22	120.54	......	......	......	......	......	......	3.96	3.40	.82	.59	1.45	4.15	.30	2.48
Fort Yellowstone, Wyo	252	261.90	154.76	......	......	......	......	......	......	6.06	5.68	3.62	3.38	2.21	8.44	1.32	8.54
Fort Stevens, Oreg	387	294.57	178.29	2.69	......	2.58	......	5.27	......	8.84	6.84	3.67	3.22	3.23	10.96	1.34	7.51
West Point, N. Y	838	343.68	231.50	2.79	2.79	2.39	1.19	5.18	3.98	7.16	6.11	3.88	3.37	2.61	7.60	1.42	6.12
Fort Hamilton, N. Y	629	389.51	292.53	6.54	4.90	4.77	3.18	11.31	8.08	5.90	5.46	4.07	3.69	2.15	5.53	1.49	5.08
Recruit depots:																	
Fort Slocum, N. Y	1,287	1,341.10	1,004.66	39.65	31.72	5.44	3.88	45.09	35.60	38.64	37.06	28.24	27.25	14.10	10.52	10.31	10.26
Fort Logan, Colo	571	1,183.89	959.72	14.47	5.43	8.76	5.25	23.23	10.68	38.09	35.14	27.81	26.26	13.90	11.74	10.15	10.58
Columbus Barracks, Ohio	1,166	1,125.21	885.93	12.25	10.50	13.72	12.01	25.97	22.51	31.08	30.63	23.44	23.04	11.34	10.08	8.56	9.66
Fort McDowell, Cal	871	865.69	632.61	5.85	5.85	1.15	0.00	7.00	5.85	11.12	10.78	9.24	9.04	4.06	4.69	3.37	5.33
Jefferson Barracks, Mo	1,413	815.99	508.85	23.01	22.29	14.86	12.74	37.87	35.03	34.69	34.60	20.19	20.13	12.66	15.52	7.37	14.48

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[1] No hospital; the sick are treated in the general hospital.

TABLE NO. 26.—*Influence of disease on enlisted men, American troops, serving in the United States, by arms of service, for year 1915.*

Arms of service.	Mean strength.	Admitted.	Discharged on certificate of disability.	Died.	Constantly noneffective.	Ratio per 1,000 of mean strength.			
						Admitted.	Discharged on certificate of disability.	Died.	Constantly noneffective.
Infantry	16,570	9,807	210	41	380.00	591.85	12.49	2.44	22.93
Cavalry	11,703	6,323	110	26	227.18	540.29	9.26	2.19	19.41
Coast Artillery	15,057	7,797	188	44	288.91	517.83	12.31	2.88	19.19
Field Artillery	3,707	2,586	48	8	91.27	697.60	12.77	2.13	24.62
Engineers	1,262	825	13	4	41.89	653.72	10.16	3.12	33.19
Ordnance	647	271	....	4	8.27	418.86	....	6.10	12.78
Signal Corps	843	393	5	4	17.90	466.19	5.85	4.68	21.23
Hospital Corps	2,898	1,507	46	7	57.18	520.01	15.65	2.38	19.73
All others	11,038	6,463	151	55	217:18	585.52	13.49	4.91	19.67
Total	63,725	35,972	771	193	1,329.77	564.49	11.93	2.99	20.87

TABLE NO. 27.—*Influence of season, United States, continental (excluding Alaska), year 1915, officers and enlisted men.*

Month.	Mean strength.	Ratios per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, vaccinia, alcoholism, and injuries).
		All causes.					Exclusive of venereal diseases, alcoholism, vaccinia, and injuries.			
		Admissions.			Noneffective.					
		Total.	Hospital.	Deaths.	Total.	Hospital.	Admissions.	Deaths.	Noneffective.	
January	68,914	61.02	45.12	0.34	24.76	21.09	41.14	0.24	16.24	Tonsillitis, 520; acute bronchitis, 321; influenza, 202.
February	69,958	64.77	47.92	.49	26.99	22.99	47.99	.32	18.95	Influenza, 500; tonsillitis, 491; acute bronchitis, 299.
March	69,114	71.65	51.80	.49	28.50	24.21	52.55	.35	20.27	Influenza, 523; tonsillitis, 483; acute bronchitis, 340.
April	68,117	61.57	42.84	.45	27.95	23.01	42.36	.32	19.35	Tonsillitis, 380; influenza, 280; acute bronchitis, 198.
May	66,684	52.82	36.73	.27	25.30	21.20	32.22	.18	16.58	Tonsillitis, 216; Acute bronchitis, 109; furuncles, 102.
June	66,291	49.00	33.40	.37	24.23	20.80	29.79	.18	15.48	Tonsillitis, 177; furuncles, 125; malaria, 84.
July	65,563	53.84	36.65	.34	24.16	20.20	32.96	.13	15.56	Tonsillitis, 156; furuncles, 125; constipation, 112.
August	63,752	51.90	37.10	.69	24.78	21.17	31.12	.12	15.59	Tonsillitis, 132; furuncles, 116; acute bronchitis, 108.
September	65,480	52.93	37.87	.39	24.61	20.63	33.61	.22	15.32	Gastro-enteritis, 144; tonsillitis, 134 intestinal fermentations, 133.
October	64,782	52.58	36.43	.53	24.74	20.77	33.77	.24	15.21	Tonsillitis, 142; gastro-enteritis, 140 acute bronchitis, 139.
November	65,771	57.44	26.80	.41	25.78	21.61	36.26	.16	15.67	Influenza, 281; acute bronchitis, 232 tonsillitis, 198.
December	67,038	64.84	45.14	.55	27.32	22.64	45.62	.35	16.92	Imfluenza, 830; acute bronchitis, 351 tonsillitis, 284.
Total	66,789	696.04	493.14	5.31	25.77	21.70	461.29	2.83	16.78	Tonsillitis, 3,313; influenza, 2,919 acute bronchitis, 2,414.

SANITATION, UNITED STATES.

The general sanitary conditions throughout the United States for the Army have been very satisfactory. Such defects as were reported were of a minor character and were promptly remedied through the cooperation of those in authority. At several of the newer posts in the Canal Zone complaints have reached the office in regard to the absence of screening against mosquitoes. Unfortunately it has not been possible to make corrections in all cases through a lack of appropriation of funds.

The department surgeon, Eastern Department, under the subject of hospital treatment in the Canal Zone, remarks:

I desire to invite attention to the unsatisfactory condition in the matter of hospital treatment in the Canal Zone for those in the military service, and more particularly for the dependent members of their families, who are accorded the privilege of hospital treatment, subject to a charge for subsistence and medicines, everywhere else in the service where troops are serving and the facilities exist, except in this district. Aside from the hardship just mentioned, I consider the present arrangement, whereby all the sick of the service are sent to the Canal Zone hospitals except those requiring dispensary treatment only, and by which the medical officers there on duty are deprived in large part of the care of the sick and in whole of the professional work and administration of hospitals, as tending to the deterioration of the efficiency and morale of the medical officers concerned. In my opinion, the restoration to the Medical Corps of its proper function of the care and control of all military sick, by the establishment of military hospitals in the Canal Zone on exactly the same basis as elsewhere in the Army, is the most important medico-military matter in this department.

On the subject of sanitary inspections, he further remarks:

No sanitary inspections were made during the year. The War Department under date of July 8, 1915, decided that "Such general inspections except for troops in the field in large camps should be made as a rule by officers of the Inspector General's Department, that inspections by sanitary inspectors should be limited to special cases requiring unusually detailed and careful inspection of a more or less technical character," etc. A great part of the work of the sanitary inspector is of a technical nature, and no other inspector is capable of giving such expert information to the department commander or the Surgeon General, who are by these inspections kept fully informed as to the proficiency of the personnel, care of the sick, sanitary conditions and health of the troops, not to speak of the inestimable disciplinary value that accrues to the medical personnel of the various posts from a knowledge that searching technical inspections will be made each year of all things pertaining to the Medical Department by an official sanitary inspector. As a matter of fact, the sanitary inspector was called upon to take over the inspections previously made by the department surgeon, who was required by regulations, ever since the Civil War, to inspect every post in his department at least once a year.

Further he states:

In the matter of winter armory inspections by medical officers, the fact that there have been assigned to districts five medical inspector-instructors, has improved the situation very much, so far as the post surgeons are concerned, it having been necessary to recommend very few details for this duty. But in regard to the summer encampments, where the services of a medical inspector-instructor are required for every organization which has attached to it sanitary personnel, the department was put to it to find officers available at the times and places required. In the vicinity of Boston, last summer, there were six different encampments of the Massachusetts Volunteer Militia at different places at the same time. The encampment of United States troops at Plattsburg, to which students and business men were invited, lasting, as it did, more than three months, required the services of a number of medical officers in addition to those serving at Plattsburg Barracks. The situation was such that it was necessary to recall the sanitary inspector from leave and send him up to Plattsburg Barracks to administer the hospital at that post.

In commenting upon the sanitary conditions in that department during the year, the department surgeon, Western Department, states:

> The sanitary conditions throughout the department for the year were very good. A few defects were noted on the monthly reports, and where possible were promptly corrected. The following is deemed worthy of special note:
>
> The water supply for the Presidio of San Francisco, Fort Winfield Scott, the Letterman General Hospital, Fort Mason, and the transport docks, is obtained from a small stream that arises from springs on the Presidio Reservation and flows a short course near the southern boundary of the reservation to the sea. There are many buildings just outside the reservation and the slope of the creek is abrupt and such that contamination by drainage from the adjacent streets and buildings and leaking sewers is always a possibility. At the pumping station the water is subjected to rapid mechanical filtration with the addition of a coagulant, and the laboratory findings of the filtered water have been satisfactory; but the dam is wooden and in bad order and the sediment tank is too small to perform its function. Recommendations have been made that a concrete dam and two sediment tanks be built, and the item has been included in the 1917 estimate to Congress. As the large number supplied with water from this plant, and the liability of the supply to contamination makes it important that the filtration plant should be kept in the highest state of efficiency, it is believed that the work recommended is of considerable importance.
>
> The surgeon at Vancouver Barracks reported the water supply endangered by a cesspool in use within 75 yards of the wells. A requisition for the construction of a septic tank for the disposal of this sewage was forwarded to the War Department "approval recommended" under date of November 30, 1915.
>
> The surgeon, Presidio of Monterey, Cal., recommended in the sanitary report for December, 1914, the "Extension of existing barrack buildings to provide sufficient squad rooms to give at least 60 square feet floor space to every man; the installation of an adequate heating and ventilating system in all barracks; the installation of modern plumbing (water-closets and urinals) and adequate hot water system for bath rooms; connection of barracks to bath rooms by covered passage." The foregoing has been the subject of considerable correspondence, and the present status is that estimates for this construction (as modified in the office of the Quartermaste General) were to be included in the estimate for the fiscal year 1917.

The department surgeon, Central Department, in his annual repor for the calendar year 1915, states:

> All conditions were cheerfully met and the duties required of the medical officer were satisfactorily performed, no complaint being received as to unsatisfactory o inadequate service. The service of the medical officers assigned as locum tenens a posts was also satisfactory.

Speaking of the venereal situation in the department, the surgeo at Fort Leavenworth is quoted as follows:

> The venereal rate has been somewhat above the average for the Army. Care ha been taken to make every provision for the convenience, comfort, and privacy of th men who come to the hospital under the provisions of G. O. 17, W. D., 1912, for th cleansing and disinfecting treatment prescribed. A man of the Hospital Corp detachment is on duty at all hours of the day and night to supervise the procedur The medical officers also take occasion to point out to the men the importance of th sanitary precaution for those who will expose themselves.
>
> A wide difference exists between the various organizations as regards the carryi out of the provisions of G. O. 17, W. D., 1912, and it is believed that this has dire relation to the amount of interest which the company officers take in the matte The success of some officers in educating their men to take this sanitary precauti shows that all could achieve a reasonable amount of success by earnest and persiste efforts. It is believed that in the case of company officers who fail to attain a reaso able amount of success in the matter the fact should be noted on their efficien reports by commanding officers under the heading of remarks.

Regarding sanitation, the department surgeon adds:

> The posts in this department, all with garrisons depleted by the departure of the Second Division to the southern border, nearly three years since, have, as a rule, all been caring for themselves, with more or less difficulty, owing to their shortage of personnel.
>
> The annual reports concerning sanitation from all posts are usually brief, expressing satisfaction, and there is no reason to suppose that there are any sanitary questions in the department of real urgency.
>
> The following conditions, however, have existed for several years, during which complaints have come from Forts Leavenworth and Brady of a smoke nuisance from the use of soft coal, with recommendations for the substitution of hard coal. The greatly increased expense of such a change has, however, militated against its adoption.
>
> At Fort Russell the completion of the new post city water-supply plant is expected within a few weeks, which will permit the use of city water with confidence. This will apparently terminate an agitation for pure water lasting for years.
>
> At Fort Meade the damming up of the post sewer at terminus into Bear Butte Creek has for years prompted recommendations for the construction of a septic tank.

The sanitary conditions, as reported by the department surgeon, Southern Department, have been generally good. The men are well protected from weather. Suitable buildings were erected for the kitchens and mess halls and they have been effectively floored and screened. Latrines are boxed and fly proof. Lime and flytraps are supplied latrines. Kitchen wastes and manure are usually carted away daily by outlying farmers. Habits of men are, as a rule, very good. Food supply and preparation are satisfactory.

In speaking of the preventable diseases with which they have to contend on the southern border, the department surgeon remarks:

> War and famine have paved the way for typhoid fever, smallpox, typhus fever, and influenza in severe forms, and these epidemic diseases have all prevailed in Mexico and among the refugees who have flocked to this side of the border. The fact that smallpox has been limited to two cases, typhoid fever to two, and epidemic meningitis to one show how splendidly under control are these diseases, which formerly caused such morbidity and mortality.

Further, he adds:

> The prevailing diseases have been gastrointestinal, bronchial, and venereal. Acute follicular tonsillitis and influenza have prevailed extensively during the colder months, especially at Douglas, Ariz. They seem connected, in their mode of spread, with poor ventilation in the tents of the men and in the various moving-picture shows frequented by the commands. Improvement has followed a greater care in seeing that the tents are properly aired during the day and ventilated at night. The proprietors of the various picture theaters have likewise cooperated to improve their ventilation.
>
> There were relatively a large number of cases of diphtheria. Twelve of these cases occurred at Fort McIntosh from January 6 to May 3. The usual methods of isolation, careful bacteriological examinations of throats, and immunization of contacts with antitoxin kept the disease well in check. The majority of cases seem to have been contracted in Laredo, where an epidemic prevailed during the spring.

In explanation of the high rate of venereal diseases it is stated:

> It is partly due to the soldiers obtaining 24-hour passes and failing to take the prophylactic treatment soon enough after exposure to be of much value. For such as these, and especially for the use of troops serving on the border and on detached service, where the usual prophylactic can not be given, it is recommended that the prophylactic tubes formerly authorized be again issued.

Continuing on this subject of venereal disease, the following is quoted from the report of the surgeon, Fourth Infantry, Brownsville, Tex.:

> At Brownsville the usual factors are: (*a*) The small number of prostitutes present in a small town; (*b*) the exceedingly low grade of those who are here. Cause: (*a*) Operates by the whole number of women becoming more rapidly diseased than in a

larger town and increasing the chances of contagion. Light is shed as to the grade of these women by the fact that pediculosis pubis is exceedingly prevalent in the command, as many as eight cases having been found in one company at the semimonthly physical inspection. The large majority of these women are Mexican-Indians, which fact needs no further comment as to their hygienic condition.

The large number of prophylactic treatments given indicates a general knowledge of the importance of the measures and would give ground to expect a small venereal rate were it not for the well-known means of circumventing the order or of partial compliance that is sufficient to avoid legal penalties but not sufficient for therapeutic benefit. All cases of venereal exposure without venereal prophylaxis, where the facts could be established, have been tried by summary court-martial. There have been 17 convictions for this offense during the year.

The surgeon, Twelfth Infantry, Camp Stephen Little, Nogales, Ariz., contributes the following on the subject:

> This station can point with pride to the unusually low venereal rate for the year, which could only have been secured through the system of venereal prophylaxis in use. During the year there were recorded 5,401 prophylactic treatments, an average of 450 per month. These figures show the great extent to which the men have been exposed to venereal disease. Prostitution in this vicinity is not regulated and most of the prostitutes are Mexican women who loiter in the vicinity of the camp. Undoubtedly a very favorable influence in reducing the number of vereneal infections has been the absence of saloons in the town of Nogales. A sober soldier after exposure to venereal disease resorts to the prophylaxis and properly carries out the treatment, but a venery associated with drunkenness is a serious menace to an individual's health and undoubtedly is the cause of so-called failures of our venereal prophylaxis.

The following, quoted from the report of the surgeon, Eighteenth Infantry, Douglas, Ariz., has the approval of the department surgeon:

> When cases are transferred to other hospitals their subsequent history under present methods is unknown to the medical officers who cared for patients originally. It would increase the interest in following cases, and be very instructive, if some method could be instituted of reporting changes in diagnosis, complications, and final disposition of these patients to the officers who have formerly treated them.

The surgeon, Fort Sam Houston, Tex., in his report to the department surgeon, submits the following on "Patients refusing operations:"

> The service on the border is not attractive, and as a result many men take advantage of every opportunity to leave the Army by discharge. In my opinion this accounts for the many refusals to undergo operations to render the patient fit for the military service. I am keeping a list of these refusals, and at the proper time will forward it to The Adjutant General of the Army, with remarks, with a view of having the present privilege of refusing operations revised.

The surgeon, Sixth Cavalry, which was stationed at Harlingen, Tex., reports the following:

> *Skin and subcutaneous affections.*—There has been a great number of sores, boils, abscesses, and ulcers with adenitis and lymphadenitis from infection. The prevalence with which slight scratches became spreading sores, which resist or at least require treatment over a long period, leads one to consider infection from some parasitic fungi. Abrasions from thorns, as well as bites from sand fleas and ticks, common to this section could easily promote this infection. Tropical ulcers are in some cases simulated.
>
> *Intestinal disturbances.*—Quite a number of cases of acute dysentery have been seen. These vary in severity, but have run a fairly similar course, characterized by fever and rapid onset and diarrhea of varying severity, but often with blood and mucus. They have responded rather quickly to treatment, and it is believed to be a bacillary dysentery. No amœbic cases have been observed, except one with a past history.
>
> *Malaria and fevers undiagnosed.*—There have been a few cases of malaria of the type plasmodium vivax diagnosed, and more called malaria, but the disadvantages of no having a microscope, and the habit of the corps men on duty with the troops on the rive of giving quinine has precluded diagnosis in these cases, but I believe malarial infection in this section to be a negligible factor. There have been, however, quite a number of cases of fever type undetermined. These were characterized by rapid onse with or without diarrhea, quite high and continuous fever lasting three or four day

ınd rapid recovery. With the coming of cooler weather and fewer insects, this affection seems to have lessened or disappeared.

Sanitation.—The troops at the outlying stations are for the most part in tents and have been supplied lumber for floors and kitchens. They depend upon such water as he community affords, as wells, rivers, or small lakes, and each troop is supplied with ı Lyster bag. The remainder of the regiment at Harlingen is well camped and supplied with water from the town waterworks, and with electric lights. Tents are loored and kitchens screened. Deep-pit latrines are used and are satisfactory. Flies were very numerous during the warm weather, but few remained after December l, 1915. Mosquitoes at no time have been troublesome, and these mostly of the culex ype. It has, however, been very dry since the troops arrived and all standing water n the vicinity of camp has been oiled. The climate since October 1 has been ideal, ınd it is believed the men are reasonably content. The splendid shooting has afforded he chief amusement. The outlying troops have depended largely upon Hospital Corps men for medical attendance, and the necessity of reliable men for the corps ıas been most apparent, and that they should have sufficient training. An automoıile ambulance was asked for shortly after the troops arrived in Harlingen, and was pproved but never supplied. It would have been most useful, and the scattered roops could have been much more easily and effectively cared for. The ambulance ompany has supplied service only within the town, whereas an automobile ambulance ould have collected the sick and wounded over most of the district.

CAMP SANITATION.

This subject has been one of unusual importance and interest during he past year.

The camps of instruction for civilians at Plattsburg and elsewhere, he assembling of the State troops in camps of mobilization, and the nuster in to the Federal service of 140,000 National Guard in June, 916, have necessitated a thorough consideration of all measures relatng to the care of troops in the field.

The following circular relating to camp sanitation and personal ıygiene, prepared by the Surgeon General of the Army, was early sent o The Adjutant General with a view to its publication for the informaion and guidance of all concerned.

With slight modification this circular has been approved and issued s a general sanitary order of the War Department.

As will be noted, this order embodies largely those methods which he experience of the regular troops in their camps at Vera Cruz, ıalveston, Texas City, San Antonio, and other places on the border nd in Mexico proved to be most valuable and satisfactory for field onditions.

The following sanitary regulations are published for the guidance of all concerned ad should be strictly enforced:

1. *Chief surgeon.*—The chief or division surgeon is charged with the general conduct ıd supervision of the Medical Department in the performance of its duties, and will ake such assignment of personnel as may be required.

2. *Sanitary inspector.*—The sanitary inspector is charged especially with the superision of the sanitation of the camp. It is the duty of commanders to remedy defects ported to them by the inspector.

3. *Water supply.*—Precaution must be taken to prevent contamination of the camp ater supply by keeping all containers scrupulously clean and protected from dust ıd other sources of infection.

An appliance designed by Maj. William J. Lyster, Medical Corps, and carried on ıe supply table as "Water bag, field, sterilizing," consists of a canvas bag of specially oven flax, 20 inches in diameter and 28 inches in length, sewn to a flat galvanizedon ring, hinged so it folds at one diameter. Spliced at four equi-distant points on ıe ring are two crossed pieces of hemp rope, enabling the bag to be suspended on ıy convenient support capable of holding the weight of the bag when filled with ater, which is about 330 pounds. Five nickel spring faucets are placed at equal aces about the bottom edge of the bag. The neck of these faucets is small enough to enter a canteen which can be filled in 10 seconds. The self-closing faucets prevent wastage.

The purpose of the bag is not for transporting water, but to provide a stationary receptacle in which water can be held long enough to sterilize and then distribute it. The empty bag weighs from 7 to 7½ pounds and folds into a convenient package for carriage in the field. It thus can be carried by the soldier on the infantry pack when other transportation is wanting.

After the bag is suspended and filled with water, it is sterilized by the addition of a small amount of hypochlorite of calcium. This is carried in measured doses, sealed in glass tubes. A package of 60 of these tubes weighs 10 ounces and measures 7½ by 3¼ by 4¼ inches. Packed in corrugated paper it will stand rough usage.

The tubes themselves are 3 inches in length by three-fifths of an inch in diameter and are marked with a file enabling them to be easily broken in the fingers without fragments. They contain from 14 to 15 grains of calcium hypochlorite. This chemical contains from 30 to 32 per cent chlorin, which forms in the water hypochlorous acid and results in sterilizing the water. The process is one of oxidation. In the strength used waters highly infected are rendered safe. Of course, in such strengths (1–500,000) grossly polluted water such as sewage will not be rendered safe. Water ordinarily used will be entirely safe after being so treated. As the chemical acts more efficiently in clear waters, a filter-cloth, to be fastened over the opening of the bag and weighing 1 ounce, is provided, or water may be strained through a blanket. The bag is filled after it is in place. Suspended matter, such as clay, is largely removed and not left to interfere with the action of the chlorin.

Comprehensive experiments demonstrate the bacteriological efficiency of the appliance. The organisms causing typhoid fever, the dysenteries, including amœbic or tropical dysentery, and ciliates are promptly destroyed. Even in the vegetative form amœbæ are killed in 15 minutes—ordinarily 5 to 10 minutes suffices after the addition of the powder to render the water safe to drink. Exposure of 30 minutes has been found to destroy all amœbæ and ciliates under most severe conditions in a test.

4. *Disposal of garbage.*—For detachments or companies in camps, or in isolated locations where other means are not available, the incinerator shall be installed.

If wood is plentiful and medium-sized stones can be obtained, both liquid and solid refuse can be disposed of by using incinerators improvised for each company as follows:

A pit is dug about 5 feet long, 2½ feet wide, and 6 inches deep at one end and 12 at the other; the excavated earth is banked around the pit and the latter is then filled with stones on which a fire is built; when the stones have become heated liquid refuse is poured into the pit (shallow end) where it gradually evaporates; solid matter is burned on the fire.

The efficiency of this type of incinerator depends largely upon the fact that porou earth absorbs a very large part of the liquid slops, but it is not considered practicabl to destroy the usual accumulation of slops every day without using an extravagan amount of fuel.

A type of incinerator having a fire bed of rock 1 foot deep will not permit the hea from the fire to penetrate beyond that depth. The rock wall on three sides of th fire bed absorbs much heat that otherwise might be dissipated into space, whic increases the evaporating capacity of the incinerator enormously, and requires comparatively very small amount of fuel. Incinerators built of large rocks are cor sidered to be most efficient.

About one-sixth of a cord of wood per day per company is considered more tha sufficient for the destruction of all slops and garbage, if ordinary care and attentio is given the incinerator. Liquid slops should be evaporated by being poured slowl along the vertical walls of the incinerator, not upon the fire bed, and the solid garbag should be placed on top of the fuel. It has been determined that a skilled attenda can destroy 100 gallons of liquids and 23 cubic feet of solid garbage in about 12 hou by using one-sixteenth of a cord of wood.

Where rock is not available, material (brick, 340; lime, three-fourths bag) will obtained on requisition from the quartermaster. Where disposal in a sanitary wa can be made by means of carts, the garbage can may be used. The cans shall be tho oughly cleaned, scalded and coated with crude petroleum after emptying.

5. *Disposal of manure and care of picket lines.*—All manure shall be hauled to t camp dump. Picket lines shall be kept broom swept and all manure and straw haul off daily. A weekly incineration of the picket lines shall be cccomplished wi crude oil at the rate of 10 gallons to each line. Crude oil may be obtained from t Quartermaster Corps on usual requisition.

6. *Disposal of excreta.*—Where a water carriage system is not feasible, the Havard box shall be used over the earth latrines. Daily inspections of this system are enjoined on the part of the medical officer of the organization, who will see that the following plan is carried out:

(*a*) The latrine shall be burned out thoroughly with crude oil and hay twice a day. (Each burning, 1 gallon crude oil and 7.5 pounds of hay, or straw.)

(*b*) The boxes shall be at all times kept fly-tight; this implies closure of all cracks and care of the hinges and a back construction so that the lids drop automatically. The latrine seats shall be washed off twice weekly with a 1 to 100 solution of cresoline, or other disinfectant, and whitewashed inside twice weekly.

(*c*) Latrines shall be rebuilt when filled to within 2 feet of the top.

(*d*) Where water-carriage system is in vogue, either the automatic flush or trough system shall be installed.

7. *Kitchens and mess rooms.*—Kitchens and mess rooms shall be securely screened and an efficient fly trap provided for catching such flies as gain entrance thereto. An effective fly trap consisting of a light wooden frame, covered with wire gauze, extending to about one-eighth of an inch of the floor of the trap, is readily constructed. It has been found that sweetened water, slightly acidulated with vinegar, is an excellent bait.

Ice boxes installed shall be inspected daily and drip pans emptied and scalded out.

Garbage cans shall be kept on wooden racks and elevated from the ground, and cans burned out daily with oil to prevent fouling, and kept clean outside with a coat of whitewash.

8. Arrangements shall be made for the installation of shower baths for all troops and a careful inspection shall be made daily to see that waste water therefrom is so disposed of as to prevent mosquito breeding.

9. The use of the mosquito bar is imperative and it shall be used in all districts where mosquitoes are prevalent.

10. *Food and drinks.*—No food, drinks, or like commodities will be sold in camp except in the authorized exchanges.

Attention is called to the use of the following foods, the elimination of which from the messes will serve to prevent a variety of intestinal disorders:

(*a*) Canned milk and fish opened the day before. (Fish and milk poisoning.)

(*b*) Hashes of meats and potatoes prepared the night previous. (Ptomaine poisoning of severe type.)

(*c*) Locally grown green vegetables, uncooked. (Dysenteries and diarrhea.)

11. *Malaria.*—When malaria prevails, the daily use of three grains of sulphate of quinine, to be increased as indicated, as a malarial prophylactic is made compulsory.

12. *Inspections.*—Surgeons of organizations shall make a daily inspection of the commands to which they pertain, covering the following: Picket lines, latrines, kitchens, barracks, inclosed toilets, baths, garbage receptacles, incinerators, and all food supplies; they shall make a verbal report at once to their respective commanding officers for the correction of any sanitary defects noted, and a similar report, with the action taken, to the sanitary inspector on his next visit.

13. A special report shall be made at once by the surgeon of each organization to the sanitary inspector for the information of the chief surgeon, in the following cases:

(*a*) Acute infectious or contagious diseases developing in barracks or camps.

(*b*) Cases of fever of 101° or over, attended with albuminuria.

(*c*) Unusual prevalence of mosquitoes in vicinity.

(*d*) Development of amœbic or bacillary dysentery or malaria in the command.

14. Venereal prophylaxis and venereal inspections shall be carried out thoroughly and the required monthly report of the number of new cases of venereal diseases shall be sent to the chief surgeon, through the sanitary inspector, each month.

15. Areas about camps in which mosquitoes could breed, such as cisterns, tanks, woods, gutters, pools, and drains shall be kept under close observation by the surgeon, and the proper remedies applied, i. e., screening, draining, oiling, etc.

16. Sanitary squads composed of medical officers, noncommissioned officers, and privates of the Medical Department will be organized by the chief surgeon. The sanitary squad will supervise and assist in the disposal of camp wastes. Civilians employed as sanitary laborers will be employed by the Quartermaster's Department and turned over to the Medical Department.

The sanitary police officer will make requisition on the Quartermaster General for such transportation, labor, material, etc., as may be needed. When assigned to this service they will not be diverted to other uses except by competent authority.

17. *Flies.*—All possible breeding places of flies, accumulations of wastes and filth, should be destroyed by incineration and particular attention given to the manure and refuse from the picket lines and stables.

An energetic campaign must be begun at once against the mature flies.

Each company or organization will provide itself with several large flytraps, to be placed near kitchen doors, store tents, and wherever flies are present.

INFECTIOUS DISEASES.

Certain infectious diseases are of primary importance in military sanitation and will be mentioned briefly in the following notes:

Typhoid fever.—Is caused by a specific organism, the bacillus typhosus. When the bacillus finds an entrance into man's intestinal tract typhoid fever is likely to result.

The excreta, and particularly the stools of the victim of typhoid, and his urine are loaded with the typhoid bacilli. Hence the necessity for extreme care in properly disposing of excreta, and the strict avoidance of camp pollution.

Typhoid fever, like cholera, is due to the transference of fecal matter of the infected individual, either directly or indirectly, to the alimentary canal of another nonimmune person.

Typhoid fever is, therefore, chiefly a filth disease and one widely distributed over the world. Its presence in a camp or community is chiefly determined by the personal cleanliness of the occupants, and largely by their method of disposing of human excreta.

Through careless means of disposing of feces and urine, water, milk, and food become infected, very largely through the agency of insects, principally the fly, which, breeding in accumulations of refuse, manure, and various forms of filth, transfer the disease germ mechanically on their bodies and in their secretions from the infected source to the food. Absolute protection of food supplies of all kinds and persistent warfare on the fly are imperative.

The most common mode of infection in typhoid, as was shown in the camps of 1898, was by contact, direct or indirect, with the infected individual. About 60 per cent of all cases, as shown by investigations, are believed to be due to contact infection.

Direct contact infection follows intimate association with the infected person.

Indirect contact infection results from clothing, bedding, drinking cups, food, dishes, etc., which may serve to carry the infection from one person to another.

The necessity for great care as to personal cleanliness is obvious.

Frequent bathing, the washing of hands before eating, attention to laundering underclothing, and general personal cleanliness are obligatory, as well as the prompt sterilization of all articles which have been used by those suffering from the disease, as well as by "carriers," those excreting typhoid bacilli, though presenting no active symptoms of the disease.

These "carriers" are an insidious menace, an even greater one than a frank case o typhoid fever, because so frequently unrecognized. The greatest precautions mus be taken by sanitary officers for the prompt recognition, isolation, and treatment o these "carriers."

The regulations direct that all soldiers, immediately on entrance into the service be protected against typhoid fever by vaccination, as well as against smallpox. Thi regulation will be strictly enforced.

Malaria.—Is caused by a microorganism (the plasmodia malariæ) which gain access to the body through the bites of mosquitoes belonging to the genus anopheles

The predisposing causes of the disease are those that favor the development o mosquito life.

On account of the nocturnal habits of the malaria-bearing mosquitoes, the diseas is more likely to be contracted at night.

Camps will not be located near swamps or in places where standing water favo the development of the mosquito. Every precaution will be taken to destroy thes breeding places by draining and filling, or by oiling them and by the cutting awa of all grass or undergrowth for a distance of 200 yards about camps and habitations order that the adult mosquitoes may not find lodgment and protection there.

Since the malaria mosquito is chiefly a night biter, the regulation requiring th use of the mosquito bar at night will be rigidly enforced and frequent inspectio made to see that no evasion of this order occurs.

In certain conditions the use of preventive doses of quinine may be required an administered by order under the supervision of the medical officer. All cases malaria will be promptly isolated for treatment and protected from attacks mosquitoes.

Yellow fever.—Is transmitted by the bite of the yellow-fever mosquito (the *Steg myia calopus*), as proved by Maj. Walter Reed, Medical Corps, United States Arm in 1900.

Yellow fever is essentially a disease of the Tropics, and its existence is entirely dependent upon the distribution of this single species of mosquito, small and silver striped, active principally at evening time, and breeding generally in small accumulations of water close to the habitations of man.

The prevention of this disease, as in malaria, depends chiefly on the destruction of the mosquito and its breeding places, the proper protection against the bites of the insects at all times, and the early isolation, protection, and treatment of each case of yellow fever as soon as suspected.

Cholera.—Is an acute infectious disease caused by a comma-shaped microorganism—the cholera bacillus.

These germs breed in the intestines of man and find their way into the mouth of another individual through the medium of infected water, milk, and food; or the germs can be conveyed by carriers—by flies—and by contact infection, as in typhoid fever.

In every case this connection is certain and absolute. The disease extends in no other manner.

In the cholera patient practically the only infected discharge is the stool. It is therefore essentially a filth disease.

As in typhoid fever, contaminated food, dirty hands, flies, and infected clothing and bedding are frequent sources of danger. All the sanitary precautions used in the prevention of typhoid fever should be exercised, including the careful searching out of carriers—those individuals having the germs of cholera in their intestines and excreting them in their stools, thus scattering the infection and unknowingly infecting those about them and greatly assisting in the rapid spread of the disease.

These "carriers" in an infected district are often numerous, ranging in numbers from 5 to 10 per cent of the apparently normal population in a community where an epidemic prevails. "Carriers" are specially dangerous if connected in any way with the handling of the food supply.

In cholera, as in typhoid fever, dysentery, and other so-called diarrheal diseases, great care should be exercised to provide that—

(1) Only sterilized water is used.

(2) Only recently cooked and properly served food is allowed.

(3) All kitchens are screened.

(4) All refuse is burned and constant warfare made against the fly and its breeding places.

Anticholera vaccination has been proved an effective preventive measure also, but again, as in typhoid fever, the application of vaccination in these diseases does not lessen in any degree the responsibility or importance of rigidly enforcing all the general sanitary rules which have been here briefly stated.

Dysentery.—Under this head are included at least two severe specific diseases—bacillary dysentery and amebic dysentery—each caused by distinctive organisms.

In addition there may be mentioned under this heading all the various forms of diarrhea and colitis characterized by colic, bloody stools, and tenesmus.

Some of these are undoubtedly of a nonspecific and temporary nature, due to chill or to indiscretions in eating and drinking.

Prevention is the same as in typhoid fever and cholera, since there is no doubt that in the specific bacillary and amebic dysenteries the cause of the infection leaves the infected man by his excreta, largely in his feces.

Attention is again directed to what has already been said, to the great importance of strict attention to the disposal of all excreta and wastes, and to the careful investigation and protection of the water supply.

The three diseases, typhoid fever, cholera, and dysentery, may from the standpoint of prevention be considered as forming a well-marked group.

In all the mode of departure from the infected man is in his dejecta, in all it enters the infected man in food and drink, and in all three the fly very often provides the most important link.

Typhus fever.—Is an acute infectious disease caused by a specific germ, characterized by sudden onset, high fever, marked nervous symptoms, and macular eruption. It has prevailed in Mexico since the middle of the sixteenth century.

Typhus fever is transmitted to man only by the bite of the louse, which infests the body and clothing of the victims.

The prevention of typhus fever depends, therefore, upon personal cleanliness and the avoidance and destruction of infected lice.

Frequent bathing and cleansing of clothing, with repeated inspections of garments, particularly the seams, where the eggs of the louse are deposited, are imperative precautions.

The body louse lays its eggs among and attached to the fibers of clothes, with a special preference for seams and linings, a point to be remembered in the destruction of lice.

These eggs are the size of a small pinhead, yellowish white in color, goblet-shaped, and attached at the lower end to the cloth by a cement excreted by the female. They can be destroyed with boiling water or kerosene.

The avoidance of buildings, places, and persons known to be infected with lice is of first importance.

In case troops are sent into a typhus area, a railway disinfecting and bathing train will be provided and stationary plants of like character established at the bases.

Smallpox.—All soldiers will be vaccinated against this disease on enlistment. Vaccination confers immunity against smallpox for a number of years.

Any case occurring among recruits will be isolated, and contacts not protected by recent successful vaccination will be revaccinated.

Epidemic cerebro-meningitis.—Preventive measures in this disease consist of prompt recognition, isolation, and treatment of the patient.

"Carriers" will be also carefully sought for and kept under close observation.

Measles, mumps, and scarlet fever.—When these diseases appear in a command all cases will be immediately isolated, all "contacts" inspected daily, and, where the diseases show a tendency to spread, a detention camp will be established, where all recently arrived recruits will be detained under observation for a period of 12 days before being permitted to join their organizations.

Venereal diseases.—The cause of these diseases is a matter of common knowledge. They are entirely preventable, and the Government punishes those who expose themselves and contract venereal disease by prompt stoppage of pay and restriction of privileges while under treatment.

All preventive measures prescribed by Army Regulations against infections of this character will be rigidly enforced.

WATER SUPPLY.

The complaints as to insufficient and unpotable water supply at the various posts, mentioned in the last annual report, have been, in the main, remedied, and those made during the year 1915 will, it is believed, be satisfactorily adjusted by the appropriation of funds necessary to make such necessary alterations as will insure an adequate and potable supply.

In connection with the "Bags, water, sterilizing" placed upon the supply table, mention of which was briefly made in the last report of this office under this caption, it is considered meet to mention the highly satisfactory results obtained, as evidenced by the reports reaching this office, by the troops serving in the United States, as well as those making up the punitive expedition into Mexico, in the use of the bags in question.

Too much credit can not be given Maj. William J. L. Lyster, Medical Corps, the officer who devised this most useful article of equipment. During the last year certain improvements have been made in the original bag which, judging from the reports of trials, stamps it at once as an indispensable article of equipment. Among the more important merits which the bag possesses may be mentioned:

1. Its portability, thereby making it adaptable for use by small commands segregated by necessity from the main column of troops.

2. Simplicity of operation, thus insuring prompt and efficient service and a supply of potable water, not raised in temperature, whenever the demand arises.

3. Availability of potable water, obviating the desire to quench the thirst at streams, irrigation ditches, etc., on the march, since the canteen is sterilized and the filling of it supervised by those competent to determine potable water.

4. The lessening of the possibilities for ingesting, through unsterilized water, of organisms causing typhoid fever, the dysenteries

including amœbic or tropical dysentery, thus making for a minimum sick rate and for a greater efficiency among the troops.

The hypochlorite of calcium used as the sterilizing agent in connection with the bag is put up in hermetically sealed glass tubes and the tubes packed in a corrugated paper container, making a light, portable package, with little or no weight added to the pack on the soldier's back. The containers being made of corrugated paper will stand much rough usage without danger of breaking the tubes and robbing them of its active agent—chlorin.

BARRACKS AND QUARTERS.

Attention is again invited to the matter of overcrowding at the recruit depots, particularly at Jefferson Barracks, Mo., and Columbus Barracks, Ohio. Crowding adds to the ready spread of infection, especially during the winter months, when the morbidity and mortality rates for measles have been rather high. Too much emphasis can not be laid on the evil results of crowding at this time of the year, when the recruiting is augmented, and with the prospect of an increased volume of recruits in the future this defect should be remedied. It has proven such a serious defect not alone in causing temporary suspension of the work at the depots, but in causing a very large number of deaths among young men contractng measles and other contagious diseases who had reported at the depots in robust health.

During the summer months, when an open-air life is permissible, the question is not so vital; but when climatic conditions are unfavorable and infections so rife and of such increasing virulence as experienced during the winter months, at which time recruiting is so much increased in volume, crowding is a most serious defect and should, for the best interests of the recruit depots, be reduced as much as possible, even if necessary to move the permanent peronnel, as has been done in the past when an epidemic threatened.

It is believed that the expense of added buildings would, in the ong run, prove a great saving in reducing the disability and morality incident to overcrowding and the resultant spread of infection.

CLOTHING.

There has been no change in the clothing to be worn as provided for n Uniform Regulations since the last report. However, owing to he scarcity of materials it has been found necessary to make some change in the fabric used in the hat, this with the idea of meeting abnormal conditions in the National Guard.

A board of officers with the punitive expedition in Mexico give it as heir opinion that the present cuff legging is not a success and urgently ecommended the return to the legging similar in shape to that used n 1898, with certain parts reinforced with leather for the Field Artillery and Cavalry.

Several recommendations have been submitted from various ources to do away with the high collar on all of the coats, more especially in the Canal Zone, and adopt for the officers in particular collar similar to that worn by the British officers, and for the men turn-down collar similar to the old blouse collar worn before 1898. No definite action has, however, been taken on any of these recommendations.

UNITED STATES MILITARY ACADEMY, WEST POINT, N. Y.

The surgeon at West Point reports as follows on health conditions, etc.:

Corps of cadets.—The health of the corps has been excellent throughout the year. There were 579 hospital admissions during the year, equivalent to an annual admission rate of 1,000 per thousand, a decrease of 127 per thousand as compared with the preceding year; this is the smallest admission rate recorded during the past 10 years. The noneffective rate, or the number of cadets constantly in hospital, was 13.82 per thousand, as compared with 19.83 per thousand in 1915; this is the smallest rate during the past 10 years except in 1914, when it was 11.92. The average number of days' treatment of each case was 5, as compared with 6.4 for the preceding year, 4 days for 1914, and 4.8 for the preceding four years. The following table shows the hospital-admission rates and the noneffective rates per thousand for hospital cases for the past 10 years.

TABLE I.—*Admissions.*

Year.	Mean actual strength command.	Cases.	Rates per thousand.	Noneffective rates per thousand hospital.
1906–7	440	682	1,550	35.2
1907–8	404	641	1,586	32.1
1908–9	422	992	2,350	32.7
1909–10	417	987	2,366	35.7
1910–11	407	780	1,916	28.2
1911–12	531	764	1,438	17.7
1912–13	515	587	1,139	16.8
1913–14	562	612	1,088	11.9
1914–15	612	690	1,127	19.8
1915–16	579	579	1,000	13.8

There were no cases of critical illness nor of dangerous injury under treatmen during the year. A mild but extremely contagious epidemic of influenza occurre during December and January, lasting about one month and affecting about 16 pe cent of the corps; 108 cases were admitted to the hospital for treatment, the averag duration of each case being about four days; there were no serious complication Forty-one cases of contagious catarrhal conjunctivitis were treated in hospital durin the year. None of the cases were at all serious. One case of laryngeal tuberculosi occurring in a cadet on furlough, was transferred to Fort Bayard, N. Mex. Fiv cases of malaria appeared during the year, one a new case and four recurrences fro previous infections. Three cadets were discharged for physical disability, for valvul disease of the heart; one case followed an attack of articular rheumatism, in line duty; the other two occurred previous to entrance into the Military Academy.

Of the 579 hospital admissions, general diseases, including 108 influenza, furnish the greatest proportion, 135, or 23.31 per cent; injuries and other affections due external causes furnished 132, or 22.79 per cent; diseases of the digestive system 9 or 16.58 per cent; diseases of the respiratory system 79, or 13.64 per cent; and diseas of the eye and ear, including 41 cases of conjunctivitis, 56, or 9.65 per cent.

Of the 132 affections due to external causes, the greatest proportion were as usu due to accidents during riding; the next most frequent were due to football, to gy nastic exercises, to badly fitting shoes, to basket ball, and to baseball, as follows:

TABLE II.

	1915
Accidents during riding	43
Injuries due to football	25
Accidents during gymnastics	17
Injuries from badly-fitting shoes	7
Injuries due to basket ball	4
Injuries due to baseball	7
Miscellaneous accidents and injuries	29
Total	132

The football season was marked by an unusually small number of accidents, most of them of a trivial nature, no injury being permanent. Twenty-five cases required hospital treatment entailing an absence of 159 days from duty, as compared with 36 cases and 221 days lost in hospital during the preceding season. The freedom of football players from serious accidents is gratifying and is to be attributed to the fine physical condition of the members of the squad when active fall practice is begun and also to the careful oversight on the part of the medical officer on duty with the squad and of the coaching staff. Accidents are far more likely to occur when a player begins to tire and when the fine edge of mental and physical fitness has begun to turn. If at that point the player is taken out of the game most of the serious accidents of football may be avoided. This is the policy which is followed at the academy and which has given excellent results.

The following table shows the number of football injuries during the past nine years and the number of days lost by treatment in hospital:

TABLE III.

Year.	Number of cases.	Days lost in hospital.	Average days per case.
907	25	117	4.6
908	62	362	5.8
909	34	174	5.0
910	27	210	7.7
911	34	169	4.9
912	35	259	7.4
913	28	157	5.6
914	36	221	6.1
915	25	159	6.3

In the last annual report from this office, mention was made of the fact that badly-itting shoes were the cause of much foot trouble, particularly in the fourth class during ummer camp. An effort was made to prevent these troubles in the incoming class y requiring that all new cadets be measured and that shoes of proper size be issued n accordance with the detailed instructions prescribed by the War Department for itting enlisted men. The practical results of this scheme have been exceedingly atisfactory. Capt. H. C. Coburn, jr., Medical Corps, on duty with the corps during heir week's practice march in August, reported as follows:

"In closing this report I desire to call especial attention to the exceedingly small umber of foot injuries treated on this march. Only eight cadets reported to the ospital during the entire week on account of blisters or corns due to marching and hese were all of such a trifling nature that no duties were missed. I consider this xcellent showing due to the good work done this year in accurately fitting the fourth lass with shoes of proper size immediately upon admission to the academy. Last ear many cadets reported daily with foot trouble, the bulk being made up of fourth lassmen with all forms of injuries due to short shoes. The improvement this year as very noticeable and it is hoped that the good results may be perpetuated by the ame careful supervision of footwear as was practiced this summer."

A minimum standard of vision has been fixed by the War Department for graduation t the Military Academy. The vision "shall not be less than 20/100 in one eye and 0/70 in the other, these defects to be entirely correctable by proper glasses." This s in accordance with the recommendation of Maj. S. H. Wadhams, Medical Corps, ho was detailed by the War Department to make a special study of visual defects mong cadets at the academy.

3. *Enlisted men.*—During the past year there were 231 admissions to sick report, quivalent to an admission rate per thousand of 326, the lowest on record in recent ears. The noneffective rate was also lower than in 1915, being 7.9 per thousand as mpared with 9.35 for 1915. Both the admission and the noneffective rates are very nsiderably lower than for the Army at large. The following table shows the number admissions, the admission rate and the noneffective rate per thousand among enlisted en for the past six years:

TABLE IV.

	1911	1912	1913	1914	1915	1916
lmissions to sick report	622	401	415	302	359	230
ites per thousand (admission)	825	626	603	468	501	328
neffective rates	18.87	14.81	15.26	11.25	9.35	7.91
an annual strength of command	649	648	688	702	716	706

The number of admissions for transmissible diseases was small, including venereal, 28; influenza, 25; malaria, 3; tuberculosis, 3. The three cases of malaria reported were recurrent attacks; the three cases of tuberculosis were transferred to Fort Bayard, N. Mex., for treatment. No case of pneumonia was reported during the year.

4. *Civilian population.*—Health conditions among civilians attached to this command have been very satisfactory. A mild epidemic of mumps occurred during December and January among the children of officers and enlisted men, numbering 42 cases; 9 cases of measles were reported during the year, 3 of chicken pox, and 1 of whooping cough.

5. *Sanitation.*—The sanitary conditions of the post have been excellent throughout the year. The stringent measures against mosquito and fly breeding heretofore adopted have been successfully carried out. Only eight cases of malaria occurred during the year, of which seven were recurrences of previous infection. Five cases were among cadets, equivalent to an annual admission rate of 8.6 per thousand, the lowest on record except in 1914; three cases were among enlisted men, an equivalent rate of 4.2 per thousand. The admission rates for malaria for cadets and enlisted men are shown in the following table:

TABLE V.

	1908	1909	1910	1911	1912	1913	1914	1915	1916
Cadets	19.0	126.3	127.6	58.9	88.5	25.2	.0	11.4	8.6
Enlisted men	69.4	72.2	76.2	36.9	41.6	23.2	5.6	8.3	4.2

The following tables show the character and amount of certain of the professional work done during the year:

TABLE VI.—*Dental operations.*

Affecting teeth and gums	3,165
Affecting mouth and jaws	204
Fillings	1,724
Bridges	33
Crowns	76
Artificial dentures	4
Miscellaneous treatments	3,610
Total	8,816

TABLE VII.—*Surgical operations.*

	Civilians.	Cadets.	Officers.	Enlisted men.	Total.
Abortion, incomplete, curettage	4				
Abscess, incision and drainage	31	45	6	10	9
Adenoids, excision	36		1		3
Appendicectomies	13	3	1	4	2
Amputation, finger	1			1	
Cellulitis, incision and drainage	18	4		6	2
Circumcisions	8			2	1
Corns, excision		5			
Cysts, excision	1	2	3	4	1
Dislocations, reduction		3			
Empyema, antrum of Highmore, incision and drainage		2	1		
Exostosis, excision		1			
Fistula in ano, incision	1				
Fractures, reduction	4	9	3		
Hematoma, aspiration		1			
Hematoma, incision		1			
Hemorrhoids, excision	1	7	3		
Herniotomies	1	1	1	2	
Hydrocele, aspiration	1				
Ingrowing toe nail, excision		1			
Lipoma, excision			1		
Mole, excision		1			
Necrosis, bones of wrist, excision	1				
Ovariotomy	1				
Paracentesis, membrana tympani	2	1			
Perineorraphy	1				

TABLE VII.—*Surgical operations*—Continued.

	Civilians.	Cadets.	Officers.	Enlisted men.	Total.
Plastic operation, removal of tissue	1				1
Polypus, nasal, removal of				1	1
Polypus, aural, removal				1	1
Septum, deflected nasal, submucous resection	1				1
Synovitis, aspiration		2			2
Tonsillectomies	33	1	2		36
Thyroidectomy, partial	1				1
Ulcer, excision	1				1
Ulcer, curettage	1				1
Uterus, curettage and dilatation	4				4
Uterus, curettage and removal left tube and ovary	1				1
Varicocele, excision	1				1
Warts, excision		12			12
Wounds, suture	20	30	2	4	56
Total	189	132	24	35	380

TABLE VIII.—*Laboratory work.*

Examination of—		Examination of—	
Blood	249	Stomach contents	4
Feces	15	Water	12
Urine	1, 259	Milk	5
Pus	13	Urethral discharges	54
Throat cultures	103		
Sputum	63	Total	1, 777

TABLE IX.—*Miscellaneous.*

Radiograms	237	Vaccinations	235
Eye refractions	244	Surgical dressings	3, 555
Typhoid prophylactics	203	Prescriptions filled	4, 916

There have been 26 births and 7 deaths during the year.

TABLE X.—*Births.*

Males	11
Females	15
Total	26

TABLE XI.—*Deaths.*

Cause.	Officers.	Retired enlisted men.	Civilians.	Children.
Ill-nutrition				1
Mitral insufficiency		1		
Intestinal obstruction			1	
Gunshot wound of head	1			
Stillborn				3
Total	1	1	1	4

ALASKA.

The mean strength of the troops, officers, and enlisted men serving in Alaska during the past year was 787, as compared with 958 in 1914. This force consisted of Infantry, Signal Corps, and Hospital Corps, all white. Alaska still remains the healthiest region in which the Army is stationed.

The admission rate for all causes was 378.65 per 1,000 in 1915, as compared with 408.14 in 1914. The rate for disease was 292.24 per 1,000, and that for external causes 86.40, as compared with 303.76 and 104.38, respectively, in 1914. The corresponding rates for the United States were, for total causes, 696.04 per 1,000; that for disease being 559.43, and that for external causes, 136.61. The diseases having the highest admission rates are shown in the following tabulation:

Admission rates for some of the principal diseases for Alaska, American troops, officers and enlisted men.

	Total officers and enlisted men.		Enlisted men.	
	1915	1914	1915	1914
Veneral diseases	24.31	20.88	35.39	21.86
Bronchitis	30.49	19.83	28.83	20.77
Tonsillitis	25.41	29.23	26.21	30.60
Rheumatism, muscular	15.25	10.44	15.73	10.93
Pharyngitis	12.71	....	13.11	....
Alcoholism (all)	10.17	16.70	10.48	17.49
Mental alienation	10.17	9.39	10.48	10.93
Influenza	8.89	24.01	9.17	24.04
Diarrhea and enteritis	7.62	7.31	7.86	7.65
Appendicitis	6.35	12.53	6.55	13.11
Rheumatism, articular (all)	5.08	4.18	5.24	4.37
Constipation	2.54	4.18	2.62	4.37
Gastritis, acute and chronic	2.54	3.13	2.62	3.28
Synovitis	2.54	2.09	2.62	2.19
Malarial fevers	1.27	2.09	1.31	2.19
Tuberculosis (all)	1.27	1.04	1.31	1.09
All causes	378.65	408.14	386.63	422.96

The noneffective rate was 8.71 per 1,000 in 1915, as compared with 10.17 in 1914. The rate for disease was 6.02 and for external causes 2.70 per 1,000.

The diseases causing the highest noneffective rates are shown below.

Noneffective rates for some of the principal diseases for Alaska, American troops, officers and enlisted men.

	Total officers and enlisted men.		Enlisted men.	
	1915	1914	1915	1914
Veneral diseases	0.53	0.29	0.54	0.31
Appendicitis	.39	.63	.40	.66
Bronchitis	.37	.29	.34	.31
Rheumatism, muscular	.33	.10	.34	.10
Mental alienation	.27	.98	.28	1.03
Tonsillitis	.13	.33	.14	.32
Tuberculosis (all)	.15	.33	.15	.34
nfluenza	.13	.33	.14	.32
lcoholism (all)	.08	.19	.08	.20
Pharyngitis	.07	....	.07	....
Rheumatism, articular (all)	.06	.06	.06	.06
Diarrhea and enteritis	.04	.06	.04	.06
Synovitis	.04	.04	.04	.04
Constipation	.03	.06	.03	.06
astritis, acute and chronic	.02	.01	.02	.01
Malarial fevers	.01	.04	.01	.04
All causes	8.71	10.17	8.91	10.52

The death rate in 1915 was 2.54 per 1,000, and in 1914 was 8.35. n actual numbers 2 deaths occurred, one from disease and one from xternal causes.

The discharge rate, all for disease, in 1915, was 11.80 per 1,000, as ompared with 8.74 in 1914.

Tables Nos. 3 and 76 give general figures for all enlisted men as ompared with those serving in other countries, and Table No. 73 or all officers and enlisted men, together with proportionate figures or disease and injury.

Enlisted men invalided home from Alaska, 1915.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
ental alienation (defective mental development, 1; dementia precox, 1; psychosis manaic depressive, 1)	3	23.08	....	3	....	....	....
at foot	2	15.38	....	2	....	....	....
lmonary tuberculosis	1	7.69	....	....	....	....	1
xophthalmic goiter	1	7.69	1	....	....	....	....
ronic alcoholism	1	7.69	....	1	....	....	....
ysteria	1	7.69	....	1	....	....	....
eurisy	1	7.69	....	....	....	....	1
thma	1	7.69	....	....	....	....	1
cer of stomach	1	7.69	....	1	....	....	....
thritis	1	7.69	....	....	....	1	....
Total cases	13	....	1	8	....	1	3
rcentage of total cases	....	100.00	7.69	61.54	....	7.69	23.08

TABLE NO. 27½.—*Influence of station, Alaska, year 1915, on officers and enlisted men.*

Stations.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admission to sick report.		Discharge on certificate of disability.		Deaths.		Total losses.		Noneffective rate.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		For each soldier.	For each case.	For each soldier.	For each case.
										Total.	In hospital.	Total.	In hospital.				
Fort Liscum	74	513.51	324.32	27.78	27.78	......	......	27.78	27.78	16.85	15.10	12.29	11.11	6.15	11.97	4.49	13.83
Fort William H. Seward	214	448.60	336.45	29.27	24.39	......	......	29.27	24.39	8.76	8.53	6.94	6.73	3.20	7.12	2.53	7.53
Fort Gibbon	234	410.26	247.86	4.37	4.37	4.27	......	8.64	4.37	7.56	6.58	4.40	4.19	2.90	7.08	1.61	6.48
Fort Davis	107	317.76	214.95	......	......	......	......	......	......	7.45	7.45	5.17	5.17	2.72	8.56	1.89	8.78
Fort St. Michael	83	289.16	180.72	......	......	12.05	12.05	12.05	12.05	10.66	10.49	3.27	3.07	3.89	13.46	1.19	6.60
Fairbanks	31	193.55	32.26	......	......	......	......	......	......	6.19	6.19	.27	.27	2.26	11.67	.10	3.00
Valdez	44	90.91	45.45	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Total officers and enlisted men	787	378.65	247.78	11.80	10.48	2.54	1.27	14.34	11.75	8.71	8.06	5.41	5.16	3.18	8.40	1.97	7.97
Total enlisted men	763	386.63	251.64	11.80	10.48	2.62	1.31	14.42	11.79	8.91	8.31	5.50	5.32	3.25	8.41	2.01	7.98

PHILIPPINE ISLANDS.

AMERICAN TROOPS (ENLISTED MEN).

By reference to the figures furnished below it will be noted that no marked improvement in the health of the American troops serving in the Philippine Islands resulted during 1915 when compared with the figures for 1914. While the rate for venereal diseases (all) compared favorably with the admission rate for 1914, these diseases still remain a matter of concern. The admission rate for malarial fever has taken a remarkable jump, compared with the rate prevailing for that disease during 1914, being 45.26 for the latter and 63.12 per 1,000 for 1915.

The mean strength of the enlisted American troops stationed in the Philippine Islands for the year was 11,834 (S. G. O.). Of this number 10,493 were white and 1,341 colored. The statistics for the Philippine Scouts, of whom there were 5,505, will be given separately.

ADMISSION RATES.

During the year there were 11,721 case admissions for all causes, white and colored troops, making a case admission rate of 990.45 per 1,000, as compared with 8,999 case admissions and a case admission rate of 877.69 per 1,000 for 1914, 922.06 for 1913, and 1,246.99 for1912.

The case admission rate for disease only was 871.05 for 1915, 746.61 for 1914, 776.28 for 1913, and 1,075.34 for 1912.

The case admission rate for white troops for all causes was 954.35, as compared with 1,272.93 for colored troops, the latter having a mean strength of 1,341 during the year.

The case admission rate for injuries for white troops was 120.08 per 1,000 as compared with 114.09 per 1,000 for colored troops, and for the total American troops, white and colored, 119.40 per 1,000, the lowest rate for several years.

CONSTANTLY NONEFFECTIVE RATES.

The total constantly noneffective rate for the year was 29.15 per 1,000; that for white troops being 28.20 and for colored, 36.57.

The total noneffective rate for disease only in 1915 was 25.42 per 1,000, as compared with 24.62 for white troops and 31.73 for colored. The rates for 1914 were 26.60, 27.29, and 23.56 per 1,000, respectively.

DISCHARGE ON CERTIFICATE OF DISABILITY.

The American soldiers are very rarely discharged in the Philippine Islands, being invalided home and discharged in the United States; however, those so discharged are credited to the Philippines. Table No. 28 shows the diseases for which these discharges were made.

The discharged rate for 1915 was 23.22 per 1,000 as compared with the corresponding rate of 10.62 for 1914. The rate for disease only was 22.04 per 1,000, and that for injury, 1.18, as compared with the corresponding rates of 10.24 and 0.38 for 1914. The total rates for the white troops was 23.79 as compared with 18.64 per 1,000 for the colored troops.

The diseases causing the highest number of discharges were: Mental alienation, with a rate of 7.99; tuberculosis, 3.28; flat foot, 2.27, and venereal diseases, 0.93. The corresponding rates for the United States were 2.54, 1.67, 1.19, and 0.88 per 1,000, respectively.

TABLE No. 28.—*Discharges for disability, American troops in the Philippine Islands, year 1915.*

Cause of discharge.	Number discharged.	Percentage of discharges for disability for disease.	Discharged for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
Diseases of the nervous system and organs of special sense	130	49.62	16	111	3		
Mental alienation	95	36.26	9	84	2		
Dementia precox	50	19.08	8	42			
Defective mental development	21	8.02		21			
Psychosis manic depressive	2	.76	1	1			
General paralysis of the insane	1	.38			1		
Psychosis traumatic	1	.38			1		
Other forms	20	7.63		20			
Epilepsy	16	6.11		16			
Neurasthenia	5	1.91	4	1			
Otitis media	4	1.53		4			
Other nervous diseases	3	1.15		3			
Neuritis	2	.76	1	1			
Hysteria	2	.76		2			
Locomotor ataxia	1	.38			1		
Anterior poliomyelitis, acute	1	.38	1				
Choroiditis	1		1				
General diseases	67	25.57	19	31	17		1
Tuberculosis	39	14.88	18	21			1
Of the lungs	38	14.50	18	20			1
Of the joints	1	.38		1			
Venereal diseases	11	4.20		5	6		
Syphilis	6	2.29		4	2		
Tertiary	5	1.91		3	2		
Secondary	1	.38		1			
Gonorrhea	5	1.91		1	4		
Arthritis	3	1.15			3		
Cystitis	1	.38		1			
Endocarditis	1	.38			1		
Alcoholism, chronic	6	2.29		1	5		
Drug habit	6	2.29			6		
Morphine	2	.76			2		
Cocaine	2	.76			2		
Morphine and cocaine	2	.76			2		
Dysentery, chronic entomebic	1	.38		1			
Rheumatic fever, subacute	1	.38		1			
Exophthalmic goiter	1	.38		1			
Pernicious anemia	1	.38	1				
Diabetes insipidis, chronic	1	.38		1			
Diseases of the organs of locomotion	34	12.98	2	32			
Flat foot	27	10.30		27			
Others	2	.76		2			
Periostitis	1	.38	1				
Ankylosis, chronic	1	.38	1				
Arthritis, chronic	1	.38		1			
Hammer toes	1	.38		1			
Metatarsalgia, chronic	1	.38		1			
Diseases of the circulatory system	11	4.20	5	5	1		1
Organic heart disease	8	3.05	4	4			1
Chronic valvular disease	4	1.53		2	2		
Chronic myocarditis	3	1.15		1	2		
Chronic endocarditis	1	.38		1			

TABLE NO. 28.—*Discharge for disability, American troops in the Philippine Islands, year 1915*—Continued.

Cause of discharge.	Number discharged.	Percentage of discharges for disability for disease.	Discharged for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the circulatory system—Contd.							
Endocarditis, acute	1	.38	1				
Aneurism	1	.38			1		
Tachycardia	1	.38		1			
Diseases of the digestive system	8	3.05	2	6			
Ulcer of the stomach	2	.76		2			
Inguinal hernia	2	.76		2			
Peritoneal adhesions	2	.76	1	1			
Gastritis, catarrhal, chronic	1	.38	1				
Appendicitis, catarrhal, chronic	1	.38		1			
Diseases of the respiratory system	6	2.29		6			
Asthma	4	1.53		4			
Bronchitis, chronic	1	.38		1			
Pneumoconiosis	1	.38		1			
Diseases of the genito-urinary system	6	2.29		6			
Enuresis	4	1.53		4			
Nephritis, chronic interstitial	1	38		1			
Prostatitis, chronic	1	.38		1			
Total for disease	262	100.00	44	197	21		2
EXTERNAL CAUSES.							
Secondary results of injuries	6	42.86		6			
Traumatism by falls	3	21.43	3				
Traumatism by crushing	2	14.29	2				
Traumatism by gunshot	1	7.14	1				
Traumatism by incised wound	1	7.14	1				
Traumatism, fracture of hand by striking object	1	7.14			1		
Total for external causes	14	100.00	7	6	1		
Total for disease	262	94.93	44	197	21		2
Total for external causes	14	5.07	7	6	1		
Grand total	276	100.00	51	203	22		2

DEATHS.

Deaths occurring in the United States in the persons of those invalided home from the Philippine Islands are credited to that station.

There were 36 deaths among the American troops, officers and enlisted men, during the year 1915, 34 of which were enlisted, white and colored; 20 from disease and 16 from injury, the total death rate being 2.87 per 1,000; that for disease 1.59 and for injury 1.27 per 1,000. The figures here given are taken from Table No. 29 and are for officers and enlisted men. The figures slightly differ from those given in Table No. 72 at the back of the report, which are for enlisted men only. The total death rate, officers and enlisted men, for 1914 was 3.64 per 1,000; that for disease being 1.95 and for injury 1.69 per 1,000. There were 3 deaths from drowning in 1915, as compared with 4 in 1914. Six suicided in 1915 as against 2 in 1914.

Tuberculosis caused 6 deaths in 1915 and 4 in 1914; dysentery, 2 in 1915 and 1 in 1914; alcoholism, no deaths in 1915 and 2 in 1914.

TABLE NO. 29.—*Causes of death, American troops, Philippine Islands, year 1915, officers and enlisted men.*

Causes of death.	Number of deaths.	Ratio per 1,000 of— Mean strength.	Ratio per 1,000 of— Deaths from disease.
DISEASES.			
Tuberculosis (all of the lungs)	6	0.48	300.00
Purulent infection and septicemia	3	.24	150.00
Dysentery, entamoebic	2	.16	100.00
Diphtheria, laryngeal	1	.08	50.00
Syphilis, tertiary	1	.08	50.00
Myelitis, acute diffuse	1	.08	50.00
Apoplexy, cerebral	1	.08	50.00
Valvular disease of the heart	1	.08	50.00
Aneurism of aorta	1	.08	50.00
Dilatation of stomach, acute	1	.08	50.00
Nephritis, acute	1	.08	50.00
Nephritis, chronic interstitial	1	.08	50.00
Total	20	1.59	1,000.00
EXTERNAL CAUSES.			
Suicidal	6	.48	375.00
By gunshot wound (rifle, 2; revolver, 2)	4	.32	250.00
By hanging	2	.16	125.00
Homicidal	2	.16	125.00
By gunshot	1	.08	62.50
Missile unknown	1	.08	62.50
Accidental	8	.64	500.00
Drowning (while swimming, 1; circumstances unknown, 2)	3	.24	187.50
Crushing (railroad accident, 2; automobile accident, 1)	3	.24	187.50
Burns, general (explosion of wood alcohol)	1	.08	62.50
Fall (into well)	1	.08	62.50
Total	16	1.27	1,000.00
Total for disease	20	1.59	555.56
Total for external causes	16	1.27	444.44
Grand total	36	2.87	1,000.00

PREVALENCE OF SPECIAL DISEASES, AMERICAN TROOPS (ENLISTED MEN).

TYPHOID FEVER.

None occurred in 1915 or in 1914 and 1913.

MALARIAL FEVERS.

The admission rate for all fevers of this class was 63.12 per 1,000 as compared with 45.26 in 1914 and 112.08 in 1913. The rates for American and native troops are shown graphically in charts X and Y.

By reference to Table No. 31 it will be seen that Camp Stotsenburg had the highest admission rate for American garrisons, 121.18 per 1,000, as compared with 81.12 in 1914. Camp Eldridge, last year stood in second place, this year has dropped down to No. 4. Fort Mills, which was No. 7 on the list in 1914, now takes second place with a rate for 1915 of 88.48, compared with 31.75 per 1,000 in 1914. In this connection it should be noted that the posts garrisoned with ative troops have considerably higher admission rates than those garrisoned with American troops.

ABLE No. 31.—*Malarial fevers, year 1915, compared with year 1914, for stations in the Philippine Islands.*

Posts.	Ratio per 1,000 of mean strength.	
	1915	1914
rincipally of American troops:		
Camp Stotsenburg	121.18	81.12
Fort Mills	88.48	31.75
Regan Barracks	37.15	39.77
Camp Eldridge	32.44	75.47
Fort Santiago and headquarters of Philippine Department	27.62	15.62
Fort William McKinley	17.95	33.28
Camp McGrath	12.40	16.97
Cuartel de Espana	10.01	72.84
rincipally of Philippine Scouts:		
Ludlow Barracks	213.42	778.49
Camp Overton	110.09	75.47
Camp Gregg	70.06	247.01
Pettit Barracks	62.90	150.48
Augur Barracks	57.42	178.90
Fort San Pedro	56.38	183.95
Camp Keithley	43.35	62.62
Camp Nichols	26.79	17.73
Warwick Barracks	21.65	152.50
Camp John Hay	13.13	37.27

UNDETERMINED FEVERS.

The admission rate for these fevers during 1915 was 4.31 per 1,000 s compared with 4.39 in 1914, 5.27 in 1913, and 15.46 in 1912. The arious diagnoses under this head are:

ebricula	27
evers, simple, continued	33
ever, type undetermined	30
Total	90

The diagnoses given above are for officers and enlisted men, American troops, and Philippine Scouts.

SMALLPOX AND VARIOLOID.

No cases occurred in the islands. One case developed in a casua transferred from a transport en route to the United States.

VENEREAL DISEASES.

Notwithstanding vigorous efforts made by the authorities and the carrying out of the provisions of G. O. 31, 1912, and G. O. 45, 1914 venereal diseases still hold first place for both admission and noneffective rates. Of the total admissions for the year over one-fift were due to venereal diseases. There were 482 admissions fo syphilis, 450 for chancroid and 1,273 for gonorrhea. Of the tota noneffective rate for disease, 25.42 per 1,000, venereal diseases alon contributed a rate of 8.10 during 1915 as compared with 10.41 in 1914

The following tabulation shows the admission rates and their cause for the enlisted personnel serving in the Philippines during 1915:

Venereal diseases, Philippine Islands (enlisted men).

	Syphilis.	Chancroid.	Gonorrhea.	Total venereal
White troops:				
1915	37.93	38.79	100.35	177.
1914	47.28	47.40	80.11	174.
Colored troops:				
1915	62.64	32.06	164.05	258.
1914	48.46	89.46	95.85	233.
All American troops (enlisted):				
1915	40.73	38.02	107.57	186.
1914	47.49	55.10	83.00	185.

TABLE NO. 32.—*Venereal diseases among officers and enlisted men at posts in the Phi ippines having strength of more than 300 men, year 1915.*

Posts.	Admissions.		Mean strengt
	Total.	Ratios.	
Principally American troops:			
Regan Barracks	230	356.04	
Camp Eldridge	164	312.98	
Camp Stotsenburg	433	213.30	2,
Camp McGrath	148	203.86	
Cuartel de España	175	194.66	
Fort William McKinley	572	190.15	3,
Fort Mills	416	88.90	4,
Principally Philippine Scouts:			
Augur Barracks	78	93.30	
Fort San Pedro	23	68.25	
Camp John Hay	18	33.77	
Warwick Barracks	11	23.81	
Pettit Barracks	9	18.87	
Ludlow Barracks	13	14.30	
Camp Keithley	9	13.93	
Camp Overton	3	6.88	

ALCOHOLISM AND ITS RESULTS.

The admission rate for this disability for 1915 was 18.08 per 1,000 as compared with 22.14 in 1914, a considerable reduction when considering the increase in this rate in 1914 over that for 1913.

The noneffective rate was 0.21 per 1,000 as compared with 0.34 in 1914. The rate for white troops was 0.22 and that for colored 0.14, the former having 197 admissions as against 17 for the colored troops.

CHOLERA.

No case of cholera reported among the American troops during 1915.

TUBERCULOSIS.

Seventy-six cases of tuberculosis occurred among American troops, making a ratio of 6.42 per 1,000 All of these cases were transferred to the United States. Of the 6 deaths reported all occurred in the cases invalided home. In 1914 there were 75 cases of this disease, with an admission rate of 7.31 per 1,000, with 3 deaths.

BERIBERI.

No case occurred among American troops.

DYSENTERY.

A marked decrease in the incidence of this disease is noted for 1915, but 63 cases occurring with an admission rate of 5.32 per 1,000, as compared with 133 cases with a ratio of 12.97 in 1914. Of the 63 cases reported, 2 were bacillary, 58 entamoebic, and 3 cases unclassified. The entamoebic dysentery gives an admission rate of 4.90 per 1,000.

The noneffective rate for dysentery (all) was 0.31 per 1,000 for 1915, as compared with 0.76 for 1914.

DENGUE.

This disease, which appeared in epidemic form at seven posts in the islands, had the second highest admission rate as well as the second highest noneffective rate, being 131.31 and 1.94 per 1,000, respectively, as compared with 33.16 and 0.55 per 1,000, respectively, in 1914. One thousand five hundred and fifty-four cases in all were reported during the year. No discharge or death, however, resulted in this number of cases.

MENTAL ALIENATION.

There were 86 admissions for mental alienation in 1915, with an admission rate of 7.27 per 1,000. In the United States the rate was 3.04 per 1,000. In 1914 the rates were 6.24 for American troops in the Philippine Islands and 3.83 in the United States.

DIARRHEA AND ENTERITIS.

A marked reduction over 1914 is noted in the cases of this disease, being 449 in 1915 as compared with 647 in 1914. The admission rate per 1,000 in 1915 was 37.94; in 1914 it was 63.10; in 1913, 67.48; and in 1912, 60.69.

The noneffective rate for 1915 was 0.51 as compared with 0.91 per 1,000 in 1914, being a marked improvement over the rate for 1913, when it was 1.14.

TYPHUS FEVER.

No case of this disease occurred among the American troops. Three cases, however, were reported in the native troops from Camp Keithley.

INVALIDING TO THE UNITED STATES.

The disease causing the highest number of men to be invalided home were, with actual numbers: Tuberculosis, 93; mental alienation, 93; flat foot, 50; epilepsy, 18; syphilis, 17, and neurasthenia, 12.

TABLE NO. 33.—*Enlisted men invalided home from the Philippine Islands, year 1915.*

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of	Remaining at end of year.
Tuberculosis (pulmonary, 91; of other organs, 2)	93	20.76	8	38	7	5	35
Mental alienation (defective mental development 20; general paralysis of the insane, 1; dementia precox, 50; others, 22)	93	20.76	....	85	....	....	8
Flat foot	50	11.16	4	34	....	2	10
Epilepsy	18	4.02	1	17	....	....	....
Syphilis	17	3.79	3	8	....	5	1
Neurasthenia	12	2.68	5	4	....	2	1
Organic disease of heart	11	2.46	2	8	....	1	....
Dysentery	8	1.79	6	1	....	....	1
Gonorrhea	8	1.79	1	5	....	....	2
Secondary results of injury	8	1.79	....	7	....	1	....
Drug habit	7	1.56	....	7	....	....	....
Chronic alcoholism	6	1.34	1	5	....	....	....
Pleurisy	6	1.34	2	1	....	1	
Fracture	6	1.34	1	3	....	....	
Exophthalmic goitre	5	1.12	3	2	....	....	....
Otitis media	5	1.12	....	4	....	1	....
Enuresis	5	1.12	....	5	....	....	....
Asthma	4	.89	1	3	....	....	....
Inguinal hernia	4	.89	1	2	....	1	....
Other intestines (adhesions 3, enteroptosis 1)	4	.89	....	2	....	....	
Chronic articular rheumatism	3	.67	....	1	....	1	
Neuritis	3	.67	....	3	....	....	....
Other nervous diseases	3	.67	....	3	....	....	....
Chronic gastritis	3	.67	2	1	....	....	....
Chronic gastroenteritis	3	.67	1	....	....	2	....
Sprue	3	.67	2	....	....	1	....
Chronic nephritis	3	.67	1	1	....	1	....
Others of locomotion	3	.67	....	2	....	....	
Gunshot wound	3	.67	1	1	....	....	
Hysteria	2	.45	....	1	....	....	
Ulcer of stomach	2	.45	....	2	....	....	....
Arthritis	2	.45	1	1	....	....	....
Synovitis	2	.45	1	....	....	....	
Incised wound	2	.45	....	2	....	....	....
Crushing	2	.45	....	2	....	....	....
Chronic malaria, tertian	1	.22	....	....	....	1	....
Rheumatic fever, subacute	1	.22	....	1	....	....	....
Arthritis deformans	1	.22	....	....	....	....	
Pernicious anemia	1	.22	....	1	....	....	....
Diabetes insipidus	1	.22	....	1	....	....	....
Locomotor ataxia	1	.22	1	....	....	....	....
Anterior poliomyelitis, acute	1	.22	....	1	....	....	....

TABLE NO. 33.—*Enlisted men invalided home from the Philippine Islands, year, 1015*—Continued.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
Paralysis, cause undetermined	1	0.22					1
Multiple neuritis	1	.22					1
Chronic conjunctivitis	1	.22	1				
Trachoma	1	.22		1			
Optic atrophy	1	.22		1			
Strabismus	1	.22	1				
Endocarditis, acute	1	.22		1			
Aneurism	1	.22	1				
Arterial sclerosis	1	.22		1			
Lymphadenitis, cervical	1	.22					1
Tachycardia	1	.22		1			
Rhinitis atrophic	1	.22		1			
Chronic bronchitis	1	.22		1			
Anthracosis	1	.22		1			
Chronic colitis	1	.22					1
Appendicitis	1	.22		1			
Ischiorectal abscess	1	.22				1	
Ulcer of duodenum	1	.22					1
Abscess of liver	1	.22					1
Cholecystitis	1	.22					1
Chronic cystitis	1	.22					1
Prostatitis, nonvenereal	1	.22		1			
Psoriasis	1	.22		1			
Painful scar	1	.22					1
Frontal sinusitis	1	.22	1				
Ankylosis	1	.22		1			
Hammer toes	1	.22		1			
Metatarsalgia	1	.22		1			
Chronic muscular rheumatism	1	.22	1				
Undetermined disease	1	.22	1				
Punctured wound	1	.22		1			
Sprain of ankle	1	.22		1			
Total cases	448		55	281	7	26	79
Percentage of total cases		100.00	12.28	62.72	1.56	5.80	17.63

Chart W.—Philippine Islands. American enlisted men.

[Admission, discharge, death, and noneffective rates for diseases having highest rates, year 1915.]

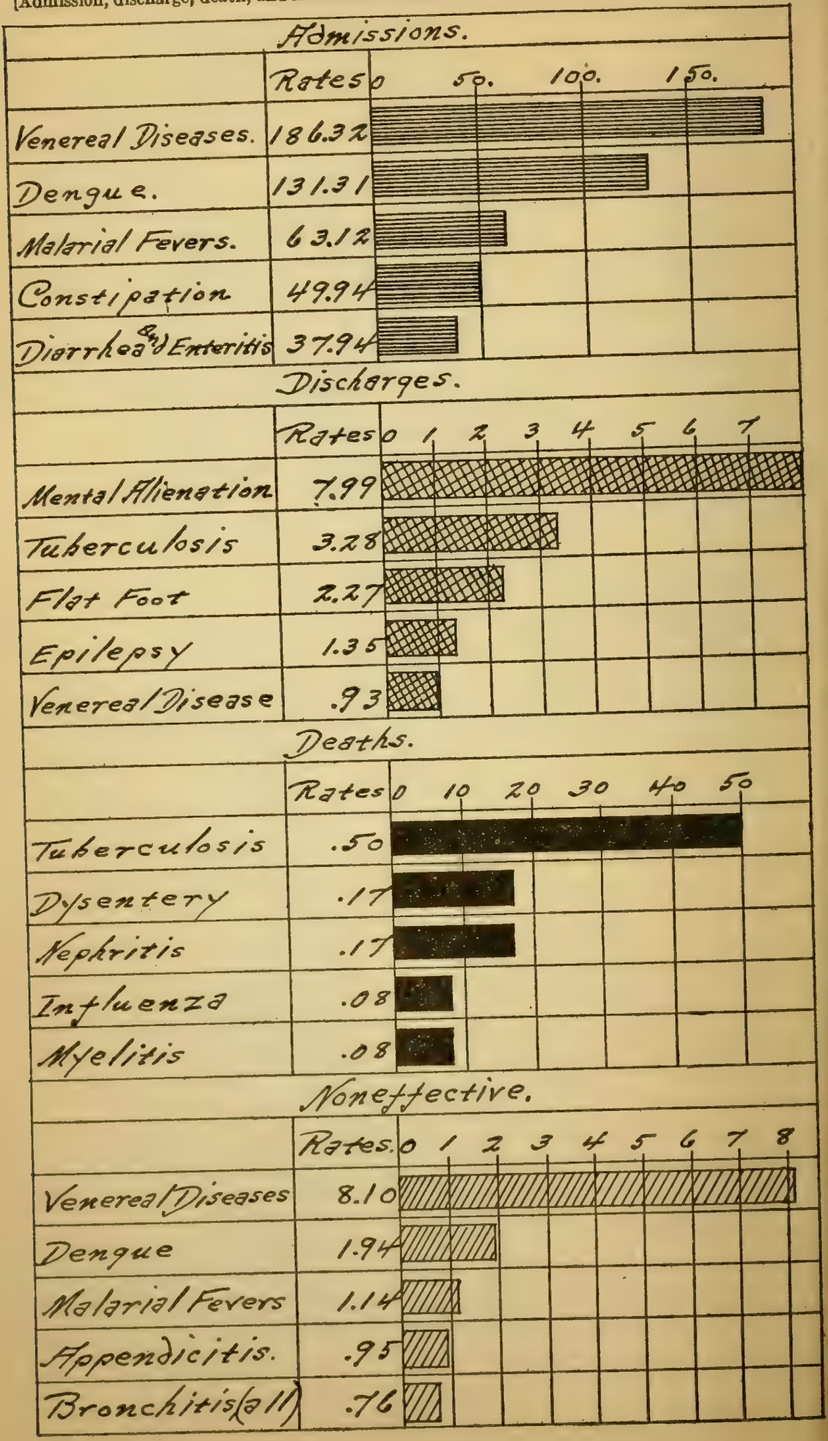
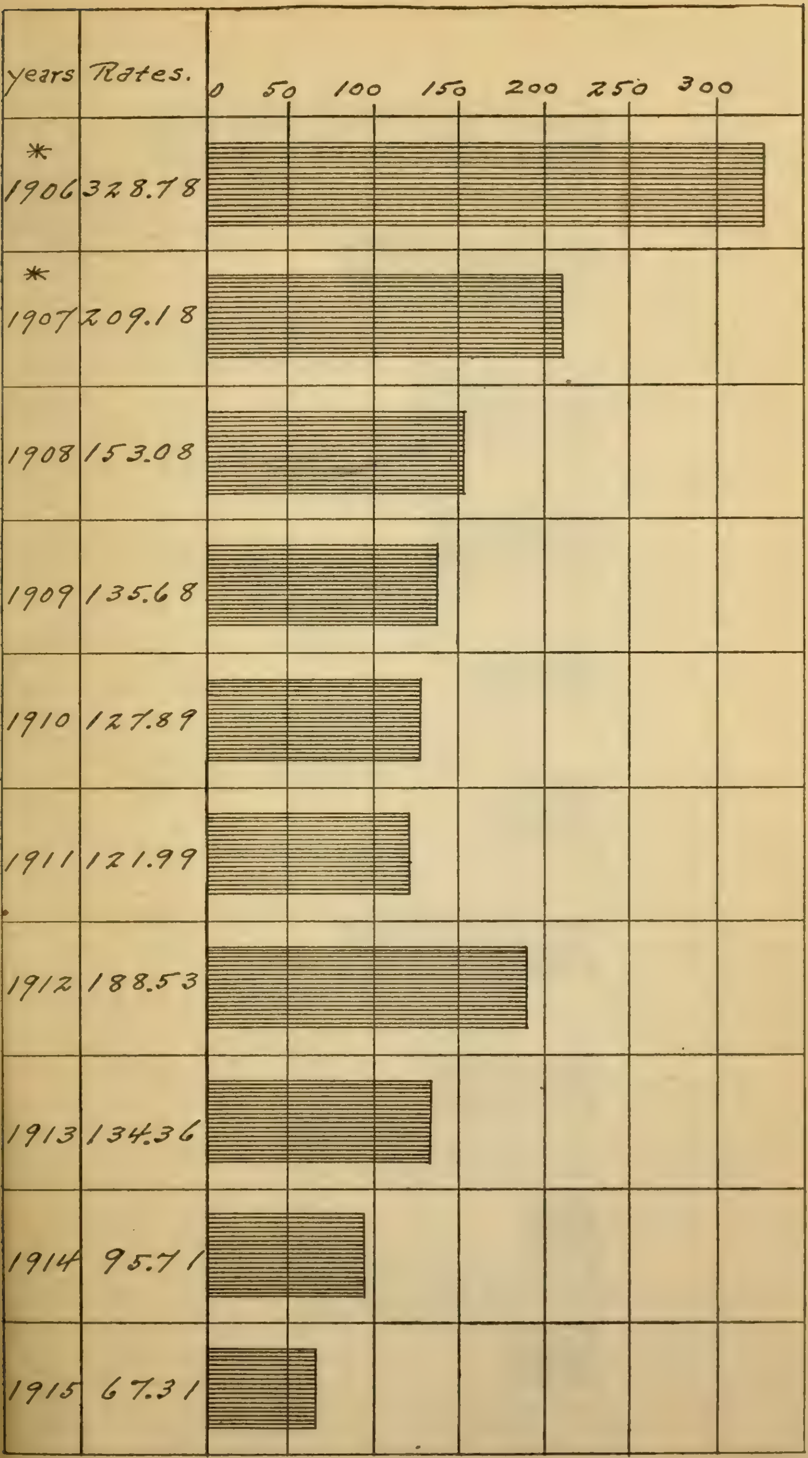


Chart X.—Philippine Islands. Officers and American and native troops.

[Admission rates for malarial fevers, years 1906–1915.]



* Enlisted men * Officers not included.

Chart Y.—Philippine Islands. American and native enlisted men.

[Comparison of admission rates for malarial fevers, years 1906–1915.]

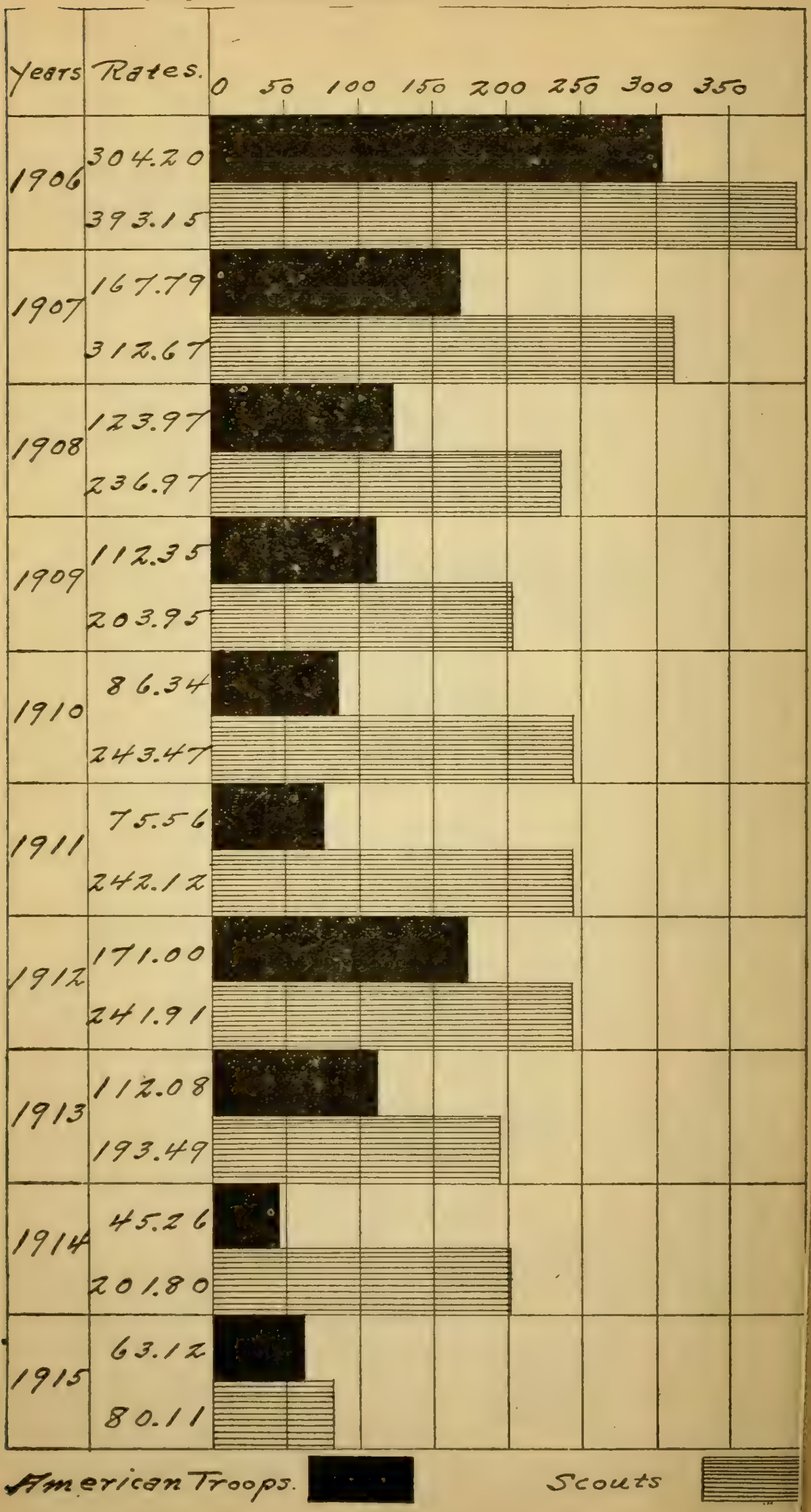


TABLE NO. 34.—*Posts in the Philippines having the highest admissions and noneffective rates per 1,000 of mean strength among all those having a total strength of over 200 officers and enlisted men, year 1915.*

Posts in order of highest admission rates from all causes.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		For each soldier.	For each case.	For each soldier.	For each case.
										Total.	In hospital.	Total.	In hospital.				
Principally American troops:																	
Cuartel de España	899	1,497.22	1,165.74	29.72	24.00	2.22	1.11	31.94	25.11	4.58	0.02	3.76	0.02	1.67	1.12	1.37	1.18
Camp Stotsenburg	2,030	1,294.58	879.31	19.71	17.63	1.97	.99	21.68	18.62	31.38	29.90	17.88	16.99	11.45	8.85	6.53	7.42
Regan Barracks	646	1,030.96	526.32	14.33	12.74	3.10	1.55	17.43	14.29	27.06	25.32	12.63	11.77	9.88	9.58	4.61	8.76
Camp Eldridge	524	986.64	545.80	25.49	23.53	5.73	1.91	31.22	25.44	23.32	22.89	11.74	11.32	8.51	8.63	4.29	7.85
Fort William McKinley	3,008	947.14	597.74	22.67	19.92	3.32	1.66	25.99	21.58	23.30	22.77	13.32	12.99	8.51	8.98	4.86	8.13
Camp McGrath	726	929.75	617.08	9.96	8.53	1.38	....	11.34	8.53	26.84	25.59	13.66	12.91	9.79	10.53	4.98	8.08
Fort Mills	4,679	622.14	465.70	23.54	21.12	1.28	.64	24.82	21.76	17.76	17.43	10.42	10.17	6.48	10.42	3.80	8.17
Principally Philippine Scouts:																	
Fort San Pedro	337	902.08	709.20	12.35	12.35	5.93	2.97	18.28	15.32	28.97	27.62	20.63	19.64	10.57	11.72	7.53	10.62
Camp Gregg	314	891.72	697.45	3.30	3.30	3.18	....	6.48	3.30	17.15	15.22	13.38	12.19	6.26	7.02	4.88	7.00
Camp John Hay	533	866.79	639.78	1.95	1.95	7.50	3.75	9.45	5.70	30.41	29.86	22.52	22.07	11.10	12.81	8.22	12.85
Augur Barracks	836	729.67	534.69	7.44	4.96	2.39	1.20	9.83	6.16	17.71	17.16	10.81	10.37	6.46	8.86	3.95	7.38
Ludlow Barracks	909	603.96	493.95	12.56	11.42	....	....	12.56	11.42	12.54	12.32	10.34	10.19	4.58	7.58	3.77	7.64
Warwick Barracks	462	508.66	396.10	....	....	2.16	....	2.16	....	12.16	11.66	8.89	8.51	4.44	8.72	3.24	8.19
Camp Keithley	646	490.71	391.64	8.04	6.43	1.55	....	9.59	6.43	11.51	10.84	8.83	8.19	4.20	8.56	3.22	8.23
Camp Overton	436	481.66	435.78	....	....	6.88	4.59	6.88	4.59	11.48	11.04	10.19	9.75	4.19	8.70	3.72	8.53
Pettit Barracks	477	415.09	297.70	2.18	2.18	6.29	4.19	8.47	6.37	11.58	10.87	6.27	5.88	4.23	10.19	2.29	7.69

INFLUENCE OF SEASON.

The highest admission and noneffective rates (all causes) occurred in July, being 116.65 and 33.59 per 1,000, respectively. Likewise, exclusive of injuries, venereal diseases, alcoholism, and vaccinia, which are not influenced by season, July had the highest admission rate, 88.33, with August running a close second, 87.82.

TABLE NO. 35.—*Influence of season on American troops in the Philippine Islands, year 1915 (enlisted men).*

Months.	Mean strength.	Ratio per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, etc.).
		All causes.					Exclusive of venereal diseases, alcoholism, vaccinia, and injuries.			
		Admissions.		Deaths.	Noneffective.		Admissions.	Deaths.	Noneffective.	
		Total.	Hospital.		Total.	Hospital.				
January	11,519	86.98	83.68	0.17	32.21	31.86	52.60	....	18.02	Malaria, 81; acute bronchitis, 67; tonsillitis, 35; dengue, 33.
February	12,097	68.52	64.97	.24	30.75	30.35	39.26	0.08	17.96	Malaria, 49; tonsillitis, 38; acute bronchitis, 28; dengue, 21.
March	12,626	71.99	68.27	.16	28.13	27.77	44.75	.16	16.52	Tonsillitis, 43; diarrhea and enteritis, 39; malaria, 38; acute bronchitis, 33.
April	13,310	85.12	75.96	.39	30.85	29.87	55.97	.31	19.10	Malaria, 110; constipation, 63; tonsillitis, 44; acute bronchitis, 42.
May	12,864	84.26	82.01	.15	31.56	31.03	54.02	.08	18.59	Malaria, 141; tonsillitis, 44; constipation, 44; diarrhea and enteritis, 39.
June	12,566	84.19	79.82	.23	31.05	30.58	62.31	.08	18.95	Malaria, 118; constipation, 81; dengue, 71; diarrhea and enteritis, 50.
July	12,464	116.65	104.78	.16	33.59	32.43	88.33	.08	21.73	Dengue, 408; constipation, 132; malaria, 63; diarrhea and enteritis, 59.
August	11,990	112.43	98.25	.49	30.66	28.90	87.82	.25	19.68	Dengue, 473; constipation, 99; diarrhea and enteritis, 67.
September	11,153	88.85	85.18	.18	30.30	29.35	64.91	....	17.57	Dengue, 307; constipation, 52; diarrhea and enteritis, 48.
October	10,769	70.29	66.95	.19	23.98	23.50	45.41	.19	13.10	Dengue, 123; diarrhea and enteritis, 36; constipation, 34.
November	10,747	56.76	52.76	.20	20.88	20.75	33.59	.20	10.78	Dengue, 36; malaria, 30; tonsillitis, 24; diarrhea and enteritis, 22.
December	9,896	55.17	51.23	.30	23.25	23.01	29.51	....	10.74	Malaria, 38; tonsillitis, 25; diarrhea and enteritis, 25.
Total	11,834	990.45	921.93	2.86	29.15	28.48	666.64	1.43	17.11	Dengue, 1,554; malaria, 747; constipation, 591; diarrhea and enteritis 449; tonsillitis, 417.

TABLE NO. 36.—*Influence of disease on enlisted American troops, by arms of service serving in the Philippine Islands, year 1915.*

Arms of service.	Mean strength.	Admitted for disease.	Discharged on certificate of disability.	Died.	Constantly noneffective.	Ratio per 1,000 of mean strength.			
						Admitted.	Discharged on certificate of disability.	Died.	Constantly noneffective.
Infantry	5,510	5,048	131	12	148.39	916.15	23.67	2.17	26.
Cavalry	1,708	1,578	21	2	41.24	923.89	12.24	1.17	24.
Coast Artillery	1,988	1,277	62	1	42.69	642.35	31.05	.50	21.
Field Artillery	906	1,239	23	1	31.09	1,367.55	25.27	1.10	34.
Engineers	340	300	7	......	8.60	882.35	20.47	......	25.
Ordnance	78	35	1	1	1.19	448.72	12.82	12.82	15.
Signal Corps	155	104	1	......	2.44	671.01	6.41	......	15.
Hospital Corps	578	345	12	......	9.41	596.89	20.65	......	16.
All others	571	382	4	1	15.77	669.00	6.97	1.74	27.
Total	11,834	10,308	262	18	300.82	871.05	22.04	1.51	25.

PHILIPPINE SCOUTS.

The health of the troops (native) in the Philippines for the year 1915 was very good, being a marked improvement over that for the year 1914. The mean strength of these troops during the year was 5,505, as compared with 5,020 during 1914.

ADMISSIONS.

During the year there were 3,159 admissions for all causes, with a case admission rate of 573.84 per 1,000, as compared with 3,585 admissions and a case admission rate of 714.14 per 1,000 for the year 1914.

The rate for disease for 1915 was 482.65 and that for injury 91.19 per 1,000 as compared with 618.33 for disease and 95.82 for injury in 1914.

The following tabulation gives the admission rates for some of the principal diseases in 1915 as compared with the year 1914:

	1915	1914
alarial fevers	80.11	201.80
iarrhea and enteritis	37.60	26.49
enereal diseases	34 33	57.57
ronchitis	28.52	24.50
engue	16.71	5.58
ysentery	9.99	8.96
nkylostomiasis	9.45	16.53
uberculosis (all)	4.54	6.57

CONSTANTLY NONEFFECTIVE RATES.

The constantly noneffective rate for 1915 was 15.68 per 1,000, as ompared with 20.30 in 1914. The rate for disease was 13.31 per ,000 in 1915, and 17.48 in 1914, while that for external causes was .37 per 1,000 in 1915 and 2.82 in 1914.

The following tabulation shows the noneffective rates for the rincipal diseases in 1915 as compared with 1914:

	1915	1914
enereal diseases	1.96	3.66
alarial fevers	1.54	3.48
cute abscess and cellulitis	1.05	.79
iberculosis (all)	.58	.82
ysentery	.56	.39
uruncle and carbuncle	.48	.62
ronchitis	.48	.60
iarrhea and enteritis	.45	.30
nkylostomiasis	.19	.46
umps	.17	.41
heumatism, articular	.03	.23

From the comparisons afforded by these tabulations, it is noted that venereal diseases, which last year (1914) showed such an alarming increase, during 1915 shows a marked improvement, although still leading the list with the highest noneffective rate. This rate has been heretofore, with the exception of 1914, but a fraction of that for American troops in the Philippines, and the disastrous results attending the development of a high rate for venereal diseases would be obvious. The most marked improvement is to be noted in the admission rate for malarial fevers, being a reduction from 201.80 in 1914 to 80.11 in 1915. While the rate for dengue is tripled for 1915 over that for 1914, yet the noneffectiveness from this disease is so small as to preclude its entry in the tabulation for the principal diseases. Diarrhea and enteritis show an increased admission and noneffective rate over that for 1914.

TABLE NO. 37.—*Movement of sick, Philippine Scouts, enlisted men, year 1915.*

	From all causes.		Excluding injuries venereal diseases vaccinia, and al coholism.	
	Total.	In hospital.	Total.	In hospital
Ratio per 1,000 of mean strength:				
Admissions to sick report	573.84	557.13	447.05	....
Discharges on certificate of disability	11.44	....	10.35	....
Deaths	2.54	....	1.63	....
Total losses	13.98	....	11.98	....
Noneffective	15.68	15.37	11.32	11.
Average number of days lost:				
For each soldier	5.72	5.61	4.13	4.
For each case	9.97	10.07	9.24	....

DISCHARGE FOR DISABILITY.

During the year 1915 there were 63 discharges from all causes, a increase over 1914 of 15. Of this number 58 were for disease and for injury, making a discharge rate of 11.44 per 1,000. Tuberculosi the same as last year, is the cause of the greatest number of di charges, there being 25 discharges during 1915. Mental alienatic caused 16, and leprosy and neuritis 2 each. In 1914 tuberculos caused 26 discharges, mental alienation 10, and leprosy 4.

TABLE NO. 38.—*Causes of discharge for disability, Philippine Scouts, year 1915.*

Causes of discharge.	Number discharged.	Percentage of discharges for disease.	In line of duty.	Not in line of du	
				Contracted before enlistment.	Contr ed af enlis men
Tuberculosis, pulmonary, chronic	25	43.10	18	7	......
Mental alienation (defective mental development, 11 and 18.97; dementia precox, 5 and 8.62)	16	27.59	1	15	......
Leprosy	2	3.47	2	....	......
Neuritis	2	3.47	1	1	......
Arthritis, gonorrheal	1	1.72	....	....	
Epilepsy	1	1.72	....	1	......
Cataract	1	1.72	1	....	......
Keratitis	1	1.72	1	....	......

TABLE No. 38.—*Causes of discharge for disability, Philippine Scouts, year 1915*—Con.

Causes of discharge.	Number discharged.	Percentage of discharges for disease.	In line of duty.	Not in line of duty.	
				Contracted before enlistment.	Contracted after enlistment.
Varicose veins	1	1.72	1		
Rhinitis, hypertrophic	1	1.72	1		
Asthma	1	1.72	1		
Paragonimiasis	1	1.72	1		
Ankylostomiasis	1	1.72		1	
Ulcer of heel	1	1.72		1	
Periostitis	1	1.72		1	
Arthritis	1	1.72	1		
Congenital malformation	1	1.72		1	
Total for disease	58	100.00	29	28	1
Gunshot wounds (2 in action, 1 accidental)	3	60.00	3		
Fracture of ribs (fall from mule)	1	20.00	1		
Lacerated wound (fall on bamboo stump)	1	20.00	1		
Total for external causes	5	100.00	5		
Total for disease	58	92.06	29	28	1
Total for injury	5	7.94	5		
Grand total	63	100.00	34	28	1

DEATHS.

There were 14 deaths from all causes during 1915, with a rate of 2.54 per 1,000, and 16 with a rate of 3.19 in 1914. Tuberculosis, which causes the greatest number of deaths, for 1915 does not appear among the diseases given, while in 1914 this disease was the cause of 4 deaths. There were 2 deaths from homicide and 1 from suicide.

TABLE No. 39.—*Causes of death among Philippine Scouts, year 1915.*

Causes of death.	Number of deaths.	Ratio per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
Asiatic cholera	1	0.18	111.11
Dysentery	1	.18	111.11
Leukemia	1	.18	111.11
Hemiplegia	1	.18	111.11
Pericarditis	1	.18	111.11
Pneumonia, lobar	1	.18	111.11
Ankylostomiasis	1	.18	111.11
Appendicitis	1	.18	111.11
Bright's disease	1	.18	111.11
Total for disease	9	1.63	1,000.00
EXTERNAL CAUSES.			
Suicide, by firearms	1	.18	200.00
Traumatism, by firearms, accidental	1	.18	200.00
Homicide, by cutting or piercing instruments	2	.36	400.00
Traumatism, by cutting or piercing instruments, accidental	1	.18	200.00
Total for external causes	5	.91	1,000.00
Total for disease	9	1.63	642.86
Total for external causes	5	.91	357.14
Grand total	14	2.54	1,000.00

SPECIAL DISEASES.

TYPHOID FEVER.

There were no cases of this disease among the Philippine Scouts.

MALARIAL FEVERS.

The admission rate for all fevers of this class was 80.11 per 1,000, as compared with 201.80 in 1914 and 193.49 in 1913. This rate is the lowest in the history of the Philippine Islands, an evidence of the persistent and vigorous antimosquito campaign that is being waged. Certain posts in the Philippines, however—notably Camp Stotsenburg, Pampanga—continue to show high admission rates for malaria. This post is not properly screened, in spite of repeated recommendations. The same statement is true of other Army posts. The relation of mosquitoes and other insects to disease incidence is now so well known that to defer the matter of complete screening of all quarters in the Army is inexcusable. "Lack of funds" or "insufficient appropriations" for this important work should no longer be accepted and the responsibility for this serious defect definitely placed.

TYPHUS FEVER.

There were 3 cases of this disease among native troops at Camp Keithley, Mindanao, where last year an epidemic resulted in 24 cases, 18 among the scouts and 6 civilians. A special report on the epidemic occurring in 1914 was made to the Surgeon General, and the article was considered of sufficient importance to publish it in the Archives of Internal Medicine, September, 1915.

VENEREAL DISEASES.

These diseases furnish an admission rate of 34.33 per 1,000, a compared with 57.57 in 1914, a marked reduction. Of a total of 18 admissions, 31 were for syphilis, 17 for chancroid, and 141 for gonor rhea, as compared with 45, 34, and 210, respectively, for 1914. Th noneffective rate for all venereal diseases was 1.96, as compared wit 3.66 per 1,000 in 1914.

SMALLPOX.

No case occurred during the year.

CHOLERA.

Two cases of this disease occurred during the year, with one deat An epidemic occurred at Tamparan and the immediate vicinity Camp Keithley, Mindanao, resulting in 20 deaths among the civili population. This epidemic seemed to be continuous with the one th had been traveling through the island of Mindanao during the ye 1915. The disease appeared at Tamparan during the last week November in a company of Constabulary soldiers recently broug there from Gannassi.

TUBERCULOSIS.

There were 25 cases of this disease, with an admission rate of 4.54 per 1,000, as compared with 33 cases and an admission rate of 6.57 in 1914. There were no deaths, all being discharged.

DYSENTERIES.

Fifty-five admissions for this disease during the year, of which number 21 were classed as bacillary, 28 as entamoebic, and 6 unclassified. The rate for this disease was 9.99, as compared with 8.96 for 1914. The noneffective rate was 0.56 per 1,000. One death resulted in the unclassified.

DENGUE.

Dengue, or "breakbone fever," is an acute disease of tropical and subtropical countries, characterized by severe pains in the muscles and joints and by an eruption similar to measles. The mortality is practically nil. It has been demonstrated that it is transmitted by the culex fatigans species of mosquito.

Ninety-two cases of this disease occurred among the native troops, with an admission rate of 16.71 per 1,000 and a noneffective rate of 0.28. There were no deaths.

DIARRHEA AND ENTERITIS.

Two hundred and seven cases occurred, making an admission rate of 37.60 per 1,000, as compared with a rate of 26.49 in 1914. The noneffective rate was 0.45.

ALCOHOLISM AND ITS RESULTS.

But one admission is recorded for this disability, the admission rate being 0.18 per 1,000.

BERI BERI.

No case of this disease occurred among the scouts during the year.

UNDETERMINED FEVERS.

There were 32 cases of undetermined fevers during the year. Under this heading are included febricula, simple, continued, and other fevers of undetermined causation. The admission rate was 5.81 per 1,000, as compared with 3.78 in 1914.

The following table exhibits the various surgical operations performed on the Philippine Scouts during the year:

TABLE NO. 40.—*Surgical operations performed on Philippine Scouts, year 1915.*

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.			
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	None.
	EYE.									
Transplantation	Pterygium	7	7	....	....	....	....	1	6	....
Incision and drainage	Dacryocystitis	1	1	....	....	....	....	....	1	....
Do	Chalazion	1	1	....	....	....	....	....	1	....
	NOSE.									
Amputation anterior end right middle turbinate.	Frontal sinusitis	1	1	....	....	....	....	....	1	....
	MOUTH AND PHARYNX.									
Incision of abscess	Alveolar abscess	1	1	....	....	....	....	....	1	....
Tonsillectomy	Hypertrophy of tonsil	4	4	....	....	....	....	....	4	....
Do	Tonsilitis	2	2	....	....	....	....	....	2	....
	THORAX.									
Aspiration	Pleurisy	1	1	....	....	....	....	....	....	1
	ABDOMEN.									
Thora-laparotomy, tenth rib	Abscess of liver	1	1	....	....	....	....	1	....	....
Appendectomy, 1; laparotomy and drainage, 1.	Appendicitis	2	2	....	....	....	....	2	....	....
Laparotomy exploratory	Penetrating wound of abdomen	[1]1	1	....	....	....	....	1	....	....
Laparotomy	Punctured wound	1	....	....	....	1	....	1	....	....
Bassini's operation	Inguinal hernia	4	4	....	....	....	....	4	....	....
	ANUS AND RECTUM.									
Incision and drainage	Ischio-rectal abscess	1	1	....	....	....	....	1	....	....
Incision and drainage, 1; sphincter dilated, tract laid open and curetted, 1.	Fistula in ano	2	2	....	....	....	....	2	....	....
Incision and evacuation of blood clot.	Hemorrhoids	1	1	....	....	....	....	....	1	...
	GENITO-URINARY SYSTEM.									
Incised and punctured	Epididymitis gonorrheal	1	1	....	....	....	....	1	....	..
Epididymotomy	Epididymitis	2	2	....	....	....	....	....	2	..
Jaboulay's operation	Hydrocele	1	1	....	....	....	....	....	1	..
Circumcision	Phimosis	3	3	....	....	....	....	....	3	..
	SKIN AND CELLULAR TISSUE.									
Incision and drainage, 73; incision and curetment, 2.	Abscess	75	75	....	....	....	....	2	39	
Incision and curetment, 2; excision, 1; curetment and cauterization, 1; incision and drainage, 4.	Carbuncle	8	8	....	....	....	1	1	3	
Incision and drainage	Cellulitis	20	20	....	....	....	....	2	14	
Excision, 5; partial excision, 1; Cotting's operation, 1; removal of nail, 1.	Ingrowing toe nail	8	8	....	....	....	....	....	8	.
	LYMPHATIC SYSTEM.									
Incision and curetment, 1; incision and drainage, 5.	Adenitis inguinal venereal	6	6	....	....	....	....	1	3	
Incision and drainage	Adenitis inguinal nonvenereal.	3	3	....	....	....	....	1	2	.
	MUSCLES, TENDONS, ETC.									
Excision	Ganglion	1	1	....	....	....	....	....	1	.

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[1] Patient died 6 hours after operation.

ABLE No. 40.—*Surgical operations performed on Philippine Scouts, year 1915*—Contd.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.			
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	None.
	BONES.									
epressed fracture raised and loose bone removed.	Depressed fracture of skull	1	1	....	....	....	....	1	....	....
reshening and resetting fractured ends of bones.	Fracture simple, both bones, forearm.	1	1	....	....	....	....	1	....	....
ound enlarged, fractured bone removed and wound closed.	Fracture, compound, comminuted, tibia and fibula.	1	1	....	....	....	....	1	....	....
esection one-fourth distal end proximal phalanx.	Non-union old fracture	1	1	....	....	....	....	....	1	....
cision and drainage	Periostitis	2	2	....	....	....	....	....	2	....
	JOINTS.									
cision and drainage	Arthritis, knee, gonorrheal	1	1	....	....	....	....	....	1	....
	AMPUTATIONS.									
mputation of finger	Periostitis	1	1	....	....	....	....	....	1	....
Do	Gunshot wound	1	1	....	....	....	....	1	....	....
	FOREIGN BODIES.									
xtraction	Piece of lead	1	1	....	....	....	....	....	1	....
	TUMORS.									
xcision	Fibroma	4	4	....	....	....	....	1	3	....
Do	Lipoma	1	1	....	....	....	1	....	....	....
xcision, 7; incision and drainage, 3.	Sebaceous cyst	10	10	....	....	....	....	....	9	1
xcision	Tumor, type not stated	1	1	....	....	....	....	....	1	....
	MISCELLANEOUS OPERATIONS.									
turing	Incised wound	1	1	....	....	....	....	....	....	1
cision and drainage	Punctured wound	5	5	....	....	....	....	....	3	2
Total number of cases		191	190	....	....	1	2	26	115	48

INFLUENCE OF SEASON.

Excluding injuries, venereal diseases, alcoholism, and vaccinia, as ninfluenced by the seasons, the highest admission rate was in June nd the lowest in October.

The highest noneffective rate for the same was in June and the west in November. The highest rate for malarial fevers was in May.

TABLE No. 41.—*Influence of season on Philippine Scouts, year 1915.*

Months.	Mean strength.	Ratio per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, etc.).
		All causes.					Exclusive of venereal diseases, alcoholism, vaccinia, and injuries.			
		Admissions.			Noneffective.					
		Total.	Hospital.	Deaths.	Total.	Hospital.	Admissions.	Deaths.	Noneffective.	
January	5,441	55.14	53.85	0.18	18.36	18.03	43.19	0.18	12.96	Malaria, 55; acute bronchitis, 16; diarrhea and enteritis, 13; constipation, 12.
February	5,445	47.94	45.92	....	16.04	15.77	36.73	....	11.08	Malaria, 55; diarrhea and enteritis 25; acute abscesses, 13.
March	5,480	48.00	47.45	....	16.25	15.99	38.51	....	11.98	Malaria, 54; constipation, 20; acut bronchitis, 19; diarrhea and ente ritis, 17.
April	5,444	48.68	47.21	.18	14.17	13.83	39.49	....	10.44	Malaria, 50; constipation, 24; diarrhe and enteritis, 17; acute bronchiti 15.
May	5,456	50.40	50.04	.55	15.35	15.06	40.32	.37	11.33	Malaria, 73; diarrhea and enteritis, 2 constipation, 13.
June	5,431	60.95	58.74	.18	17.41	17.05	51.92	.18	13.10	Malaria, 56; autointoxication, 3 dengue, 28; acute bronchitis, 27.
July	5,487	53.76	52.31	....	15.09	14.84	44.47	....	12.54	Constipation, 35; malaria, 25; dengu 19; diarrhea and enteritis, 19.
August	5,463	42.47	41.37	.18	14.86	14.67	32.58	.18	11.34	Constipation, 19; malaria, 16; acu bronchitis, 15.
September	5,513	43.53	42.08	.36	14.62	14.32	29.93	.18	10.04	Constipation, 15; diarrhea and ent ritis, 14; malaria, 13; acute a scesses, 12.
October	5,601	39.64	38.03	.36	15.71	15.39	28.21	.36	10.95	Acute bronchitis, 15; constipation, 1 malaria, 13; acute abscesses, 13.
November	5,621	42.16	40.38	.18	14.41	14.03	30.60	.18	9.29	Diarrhea and enteritis, 22; malar 15; constipation, 14; acute bro chitis, 12.
December	5,675	41.94	40.53	.35	15.90	15.39	31.89	....	10.74	Constipation, 27; diarrhea and en ritis, 18; acute abscesses, 17; ma ria, 16.
Total	5,505	573.84	557.13	2.54	15.68	15.37	447.05	1.63	11.32	Malaria, 441; constipation, 221; di rhea and enteritis, 207; acute br chitis, 156.

PREVALENCE OF DISEASES, BY RACES.

With the exceptions of diarrhea and enteritis, furunculosis, mal ria, conjunctivitis, trichophytosis, dysentery, and intestinal par sites, the rates for the Philippine scouts were all lower than f either the white or colored American troops. It should be borne mind that the native troops are serving in their own country unc conditions natural to them, to which American troops are not acc tomed.

The rates for the American white and colored troops and Scou are compared in the following tabulation:

	White.	Colored.	Scot
Admission rate	954.35	1,272.93	5'
Noneffective rate	28.20	36.57	
Death rate	2.46	5.97	
Discharge rate	23.79	18.64	

TABLE NO. 42.—*Important diseases by races, Philippine Islands, year 1915.*

Diseases.	Admission rates.					
	White troops.		Colored troops.		Philippine Scouts.	
	1915	1914	1915	1914	1915	1914
enereal	105.81	174.79	136.30	233.76	34.33	57.57
onsillitis (all)	67.24	27.83	32.91	16.50	7.08	2.19
ronchitis (all)	35.06	32.72	36.87	26.62	28.52	24.50
nfluenza	35.06	2.75	22.40	....	1.63	....
iarrhea and enteritis	31.87	68.78	26.19	37.81	37.60	26.49
urunculosis	17.01	25.79	8.62	11.71	19.62	29.88
alaria	15.90	48.60	7.75	30.35	53.77	201.80
lcoholism	14.34	25.67	6.89	6.39	.18	.60
engue	14.06	34.15	68.75	28.75	16.71	5.58
ppendicitis	8.84	13.73	7.24	3.73	.73	.60
emorrhoids	5.53	6.09	10.86	12.25	.18	.60
rticular rheumatism (acute and chronic)	4.94	3.34	3.27	1.06	.54	3.39
onjunctivitis	4.04	5.85	5.51	3.19	12.17	8.76
richophytosis	3.98	10.63	3.62	15.44	9.08	16.93
uberculosis	3.44	6.45	4.65	11.18	4.54	6.57
neumonia (lobar)	2.34	.96	3.45	.53	2.00	1.59
ysentery	2.06	12.66	.52	14.38	9.99	8.96
ntestinal parasites	1.05	2.03	.69	.53	5.99	10.76

SANITATION IN THE PHILIPPINE ISLANDS.

The department surgeon, Philippine Department, reports as follows:

AUGUR BARRACKS, JOLO.

This station shows a marked decrease in admissions on account of malaria and a slight decrease in the number of venereal cases.

The surgeon reports:

"Malaria, reported by my predecessors and continued by myself until I could verify or disprove it, as the chief disease here, does not in the light of over 300 blood examinations appear to prevail so extensively as stated * * * November 1, two companies, on surgeon's recommendation, stopped taking quinine. Their bloods (204 cases) were all examined between November 20 and December 12, without finding the plasmodium. The number of admissions, all cases from these two companies, were 13 in November as against 14 for the preceding month. In addition, all admissions to the medical ward had from two to four blood examinations, and only five times was the plasmodium found in the entire command."

He adds that the studies along this line will be continued, and a report will be made should the results show any cause for a change of opinion.

The usual antimosquito measures are carried out at the post.

He remarks with reference to the venereal problem:

"The venereal diseases constitute a large factor in the morbidity. There is evidently much clandestine prostitution, and the native soldier does not yet understand the seriousness of the venereal disease and the value of prompt prophylaxis after exposure. Prophylaxis stations and short, frequent lectures regarding the same and the necessity of early prophylaxis after exposure are employed to combat venereal disease."

During May and June cholera was epidemic in the adjacent barrios and throughout the island, but only two cases, with one death, occurred among troops.

Bacillary dysentery appears from time to time. This is attributed by the surgeon to contact infection from the civil population, in which the disease appears to be ever present.

CAMP ELDRIDGE, LAGUNA.

This post shows a decided improvement in the morbidity on account of malaria and a marked increase in the venereal diseases.

The usual antimalarial measures have been carried out.

The surgeon reports as follows with reference to antivenereal procedures:

"The special steps that have been taken to control venereal diseases are: Treatin in hospital all syphilitic cases in the infectious stage and isolation in post of all othe venereal cases; providing venereal prophylactic; disciplinary measures institute in all cases of venereal disease where failure to take venereal prophylaxis is shown lectures by medical officers given to the command on personal sanitation; the sourc of all cases of venereal disease sought out and the woman's name submitted to th authorities of Los Banos for isolation and treatment; semimonthly inspection of th command by medical officers."

CAMP JOHN HAY, BENGUET.

The surgeon reports skin diseases due to the wearing of "G" strings and foot injuri due to going barefooted. The uniform of Igorot scouts has now been changed to co form to that of other scout soldiers, and they now wear breeches, leggings, and shoes a part of the uniform.

CAMP KEITHLEY, MINDANAO.

An epidemic of measles appeared at the post in October following the arival of t Forty-seventh Company of Philippine Scouts from Fort Mills, where the disease h been more or less prevalent.

There is very little venereal disease at the post. The surgeon reports that existing orders relating to the prevention of this class of diseases are strictly complied with.

There has been a decided decrease in the malarial rate over that of the previous year. The surgeon reports the following measures for the control of the disease.

1. The constant use of mosquito bars in barracks and hospital, the bars being lowered at 4 p. m. daily.

2. Routine blood examinations of all cases of whatever nature admitted to hospital.

3. All positive cases kept in hospital and under treatment for at least one week, subsequent daily observation with treatment for two weeks, and weekly observation for a period of three months thereafter.

The surgeon again calls attention to the unfortunate condition at the post resulting from the large civilian population thereat, members of families of native soldiers, for whom no adequate accommodations are provided. This matter was referred to in the last annual report from this office, and the comment appears on page 113 of the annual report of the Surgeon General for 1915.

CAMP M'GRATH, BATANGAS.

The prevailing diseases have been dengue and venereal troubles.

The records show a considerable reduction in both venereal diseases and malaria over the rates for the preceding year.

The post authorities have cooperated with those of the neighboring municipality of Batangas in the matter of the general sanitation of the latter, and also with reference to the venereal problem.

The surgeon reports as follows with reference to measures against the venereal diseases:

"The name and address of the woman, or the license number of the house and inmate, with the time of intercourse, are recorded on prophylaxis cards. When a man contracts a venereal disease the woman is examined by an Army medical officer, and if positive, she is quarantined by the municipal health department until the health officer is notified by an Army medical officer that she is cured, the necessary examinations being made at the post hospital. The Japanese prostitutes are examined and certified to by the surgeon. There has been a marked improvement under this plan. In addition to the prophylaxis station at the hospital, a separate one is maintained at the corral, which is located practically on the outskirts of the town, thus affording the opportunity for prompt treatment. Men who contract these diseases are kept on sick report until danger of dissemination thereof has passed. Those failing to take the prophylactic are court-martialed."

CAMP STOTSENBURG, PAMPANGA.

Notwithstanding the efforts of the post authorities the admissions to sick report on account of both malaria and the venereal diseases have been greater than for the preceding year.

The surgeon reports as follows:

"The most marked sanitary defect has been the absence of screens in barracks and quarters. Also the scout post is located in an infected area, and troops quartered there have shown a high malarial incidence.

"A very active antimosquito war has been constantly waged, and the grass, brush, and undergrowth have been cut for a wide area about the post. * * * All ditches are kept open, all holes are filled, ditches and moist places are petrolized, and breeding places are constantly sought."

With reference to the venereal problem he remarks:

"Most of the cases come from Angeles, a town 6 miles distant, and in which there is no adequate regulation of prostitution. A model or sanitary barrio is situated about a mile from the post and which is countenanced. Records kept of venereal admissions show relatively few venereal cases originating in this barrio. The prostitutes who are unable, on account of venereal disease, to secure admission to this barrio become inmates of houses of prostitution in Angeles, and those who become diseased in this barrio, and are not permitted to operate there, immediately go to Angeles and continue their operations unmolested."

FORT MILLS, CORREGIDOR, AND SUBSTATIONS.

At this group of stations there have occurred at various times during the year among the population cases of mumps, measles, dengue, whooping cough, smallpox, cholera, and all the venereal diseases. The one case of cholera occurred in a native employee at Fort Hughes (Caballo Island). One case of smallpox developed in a native civilian employee at Fort Drum (El Fraile Island) and one of varioloid in a Coast Artillery soldier at Fort Mills.

There has been an increase in both venereal diseases and malaria over the rate for the preceding year, the latter increase being a very decided one.

The surgeon reports:

"All regulations complied with in regard to veneral diseases and malaria fever."

He also reports that during the year sewage and drainage systems have been greatly improved, and that sanitary conditions at this post (Fort Mills proper) are good.

FORT SAN PEDRO, ILOILO.

This post shows a very decided reduction in the admission rate for both malaria and venereal diseases over the figures for those diseases for the preceding year. The venereal rate is still high for a station garrisoned by native troops, but is far below that for any of the American garrisons, being 77 per thousand as against 214.7 for the year 1914.

The methods reported by the surgeon in handling both the malarial and venereal problems are well planned and appear to have been carefully carried out, and with good results.

FORT WILLIAM M'KINLEY, RIZAL.

The prevailing diseases during the year have been venereal, dengue, digestive disorders, and cutaneous troubles. The venereal rate has been somewhat reduced, but is still high. Prophylactic measures are conscientiously carried out at the post, and the various prophylactic stations in Manila cooperate with the authorities of this and other stations in the vicinity, but the proximity of a large oriental city makes the problem a difficult one. The malarial rate is low and shows a considerable reduction over that of last year. The surgeon reports that most of the cases coming under treatment have been contracted in other localities.

Two cases of diphtheria, with one death, have occurred in enlisted men during the year, and several cases have occurred among the civilian population of the post.

The sewage disposal system has given trouble, and a new plant is under consideration, and plans therefor have been prepared. The surgeon reports that the trouble, due to lack of capacity of the tank, has been remedied by allowing the sewage to pass directly into the Pasig River. Inasmuch as either bank is dotted with habitations, singly and in barrios, and since the river passes through the city of Manila a few miles farther down, this is a most undesirable expedient.

LUDLOW BARRACKS, MINDANAO.

Malaria has been the prevailing disease at this post during the year. There was also an epidemic of mumps. There has also been a considerable amount of cholera and smallpox in the immediate vicinity of the post, but no cases of either at the station.

This post shows the highest admission rate for malaria of any station in the department, but the rate per thousand has been cut down from 791.3 in 1914 to 220.4 for 1915. The surgeon reports the following as the measures for the control of the disease:

1. Prompt isolation and treatment in hospital of all cases.
2. Weekly administration of 1 gram quinine in solution to every man of the command.
3. Daily administration of quinine to all cases of malaria for six weeks after return to duty.
4. All barracks and quarters screened, and the general use of the mosquito bar is enforced.
5. Grass cutting and drainage of standing water in constant progress.
6. Standing water incapable of drainage oiled weekly by details from the hospital.

Only 13 new venereal cases were taken up during the year. The surgeon reports that there has been no case of chancroids and no new cases of syphilis during the time. Prophylaxis, semimonthly inspections, and hospital treatment are the preventive measures in force.

The surgeon reports the following as the sanitary defects at the post:

1. Water in mains drawn from Nituan River, and highly infected, is used for bathing and washing.
2. Swampy section in northeast corner of post.
3. Six pail closets, remaining from old system of disposal of excreta, still in use.

4. The great extent of the post, necessitating a large amount of work in keeping cogon grass and other undesirable vegetation under control.

With reference to the correction of these defects, the surgeon states as follows:

"1. An artesian well-drilling outfit is at work on the post, and it is expected that a supply of artesian well water will eventually be available for use in the mains.

"2. A reduction of the area of the swamp referred to by drainage by post labor has been effected, and the work is being continued to the extent of keeping open the ditches. He believes that further improvement is possible only by extensive filling at a cost which would probably be prohibitive, and certainly so under present conditions.

"3. Plans have been prepared and estimates made and forwarded for the replacement of all sanitary pails by water-closets."

CITY OF MANILA.

The following stations are located within the city limits: Cuartel de Espana, Cuartel de Infanteria, department hospital, Fort Santiago, medical supply depot, Manila ordnance depot, and quartermaster's depot.

Of these stations, Cuartel de Espana has normally a garrison consisting of regimental headquarters and a battalion of Infantry.

Fort Santiago (department headquarters) has one company of Infantry as a headquarters guard, one company of signal corps is quartered at Cuartel de Infanteria, a detachment of ordnance at the Manila Ordnance Depot, and detachments of the Hospital Corps at the department hospital and medical supply depot.

In general terms, and with the restriction that they are under military control, it may be said that the sanitary conditions of these stations are those of the city, and the sewer systems, general water supply, and environment are those of the city. The department hospital is practically the post hospital for all, as only dispensaries are maintained at the individual stations.

Stations for venereal prophylaxis have been established at the department hospital, and the dispensaries at Cuartel de Espana and Fort Santiago where treatment can be obtained at all hours, not only by the enlisted men stationed in the city, but also by those on pass in Manila from Fort McKinley, Fort Mills, and other posts in the vicinity. The existence of these stations is officially made known to the members of the commands of such posts, and form part of the prophylactic system thereof, cards from the stations referred to being forwarded to the surgeon of the command to which the man belongs.

At Cuartel de Espana, the only station of the group having a garrison of any considerable size, the venereal rate is somewhat higher than for the previous year (226.2 per 1,000 as against 203.4). From March to October, 1915, the garrison consisted of colored troops. The usual methods have been followed with reference to venereal diseases, and all orders and instructions relating thereto have been carried out. The rate of admissions on account of malaria has been greatly reduced. Mosquito destruction, use of mosquito bars, and the segregation and following up of cases being the methods employed for its control.

In common with other stations of the Manila group, dengue has been the prevailing disease, the principal epidemic occurring during the months of July and August, with occasional cases throughout the year.

An artesian well between seven and eight hundred feet in depth has recently been bored at Cuartel de Espana, and a covered steel tank of 10,000 gallons capacity with the necessary pumping machinery has been installed. The purpose of this well is to supply not only Cuartel de Espana but the entire military population of Manila with potable water to replace distilled water should the plan prove satisfactory. The water from this well has a slightly saline, or more properly "mineral," taste so common in waters from wells of this character. When taken directly from the well it gives a bacterial count of about 60 colonies per cubic centimeter, with no gas producers. The water in the tank later showed a bacterial count of 20,000, and from the outlet pipe 60,000 per cubic centimeter, with no gas producers. The matter of disinection of the tank was turned over to Maj. Carl R. Darnall, Medical Corps, and on November 30 he put into it a solution of hypochlorite of lime containing sufficient available chlorine to give a concentration of about 16 parts per million in the 10,000 gallons of water in the tank. This strongly chlorinated water was allowed to remain for 8 hours. The water was then drained out and the tank refilled on December 2, 1915, nd the water allowed to stand. The first sample from this filling was taken December and gave a count of 5,500 per cubic centimeter. The second sample of the same water aken December 4 gave a count of 50,000 per cubic centimeter. The third sample taken n December 6 gave a count of 30,000. The fourth and last sample from this filling was taken December 7, five days after the tank was filled, and gave a count of 550,000 per cubic centimeter. No gas producers in any of the samples. The tank was then emptied and refilled, and a sample taken 24 hours later gave a count of 25,000 per cubic centimeter. This was likewise free from gas producers.

To observe the action of the water under service conditions the water was drawn off during the forenoon of December 8 and refilled during the afternoon, and the process repeated for the six succeeding days, samples being taken while the tank was being emptied. These samples gave respective counts as follows: December 10, 55,000; December 11, 40,000; December 13, 20,000; December 14, 23,000. No gas formers were present in any sample.

The bacteriological work was done at the department laboratory by Capt. W. H. Allen, Medical Corps.

In submitting his report, Maj. Darnall comments as follows:

"From this series of tests it appears probable that the few harmless bacteria in the water as it comes from the well rapidly multiply in the tank, which, when warmed by the sun, acts as a very efficient incubator. Hence a high bacterial count in the water taken at the outlet 24 or more hours after filling the tank is of no significance in itself. It shows, however, that the water contains substances on which the bacteria (of the kind found) grow readily, and the possibility of pathogenic germs doing the same, should they by chance gain access to the tank, must be considered."

He further comments on the possibility of contamination during the process of delivery.

On December 21, 1915, after consultation with Maj. Darnall, the department surgeon transmitted to the department commander the report referred to, with the following comment:

"2. The inference to be drawn from the results of the very thorough study which Maj. Darnall has made of the subject is that the water of the well is potable, but that it is of a character which favors the rapid growth of bacteria, and that it will require exceptional care in handling. The bacteria which have already been found are in themselves harmless, but their rapid multiplication affords an index of what would happen in the event of the infection of any part of the system of supply by the accidental introduction of the organisms of cholera, typhoid fever, or other water-borne diseases.

"3. If proper precautions are taken and unceasing vigilance is exercised, it is believed that this well can be safely used as a source of supply, but in the event of its being so used, the danger of careless handling should be thoroughly understood by all who are responsible for its distribution.

"4. I recommend that the well be put in use, and that pumping be regulated by the daily requirements in order that surplus water be not allowed to accumulate; that water wagons and utensils used in distributing be frequently sterilized by steam; and that all possible precautions be taken in handling the water. I further recommend that samples of water from the tank, service pipe, and water wagons be collected weekly and sent to the department laboratory for examination."

Water from the well has recently been supplied with more or less regularity, and the matter is still under investigation, additional samples being taken for examination from water coolers and other places of terminal distribution. Certain complaints from consumers have been personally made to the writer, but these ordinarily refer to the taste of the water, which is appreciable to persons accustomed to the use o distilled water. In this respect it is considered that the Cuartel de Espana water is equal to or superior to that furnished by the artesian wells at Fort McKinley.

A new distilling plant is being installed by the Quartermaster Department at its depot to replace the one now in use. This will be held in reserve for use should the well water become infected or be finally considered unfit for use.

A second artesian well is now being bored at the department hospital.

PETTIT BARRACKS, MINDANAO.

The surgeon reports that there have been no prevailing diseases during the year A slight outbreak of dengue occurred in June. Venereal diseases have been rare There has been a marked decrease in the malarial rate. Troops sleep under mosquit bars in screened buildings, and draining and the usual antimosquito measures hav been carried out.

There is no sewerage system, and dry-earth closets are in use at the post.

REGAN BARRACKS, ALBAY.

The venereal rate at this station has practically doubled during the past year, and, with the exception of that among troops of the China expedition, is the highest in the department. The matter was taken up from this office, and the post authorities attempted and partially succeeded in enlisting the assistance of the local civil authorities in an attempted solution of the problem. In November the surgeon sent to the department laboratory a considerable number of blood specimens for Wasserman test, and explained to this office that these were from prostitutes who had been arrested by the civil authorities. He reported as follows in connection therewith.

"All known prostitutes are being arrested and examined by the district health officer and the medical officers of the command. All found infected are tried and sentenced to jail. During their confinement they are treated until noninfective. These 24 specimens are from women now undergoing confinement, as it is desired to know the number suffering from syphilis in addition to having gonorrhea and chancroids. The civil authorities have set aside a designated area, and when these prostitutes are rendered noninfective will require them to live in that area and be subjected to weekly inspections. All prostitutes found outside of the area will be arrested and confined.

The surgeon further reports that all orders with reference to inspections and prophylaxis are carried out, and that all infected men are quarantined and treated until they cease to be infective.

In this, as at all other stations, clandestine prostitution is undoubtedly an important factor in the spread of this class of diseases.

The admission rate for malaria has been considerably reduced during the year.

WARWICK BARRACKS, CEBU.

The surgeon reports that dengue is endemic in Cebu, and that with the exception of minor acute gastrointestinal disturbances and respiratory disorders this disease has furnished the greater part of the admissions to sick report during the year.

He also states that there is practically no malaria in Cubu, and states that the cases are usually imported ones, about 30 of these having recently been brought to the post with the battalion of native troops transferred from Camp Overton. The usual antimalarial precautions are taken.

The venereal rate is small. Existing orders with reference to this class of diseases are carried out.

The cuartel and hospital are reported as being located "in the dirtiest part of the city," and officers are quartered in rented buildings in the town. "The quarters of married enlisted men living out of barracks are usually dirty and badly overcrowded. The poor housing is undoubtedly a prominent factor in the causation of the respiratory disorders with which these people are affected."

TIENTSIN, CHINA, AND SUBPOSTS OF CHINA EXPEDITION.

This command continues to lead the department in the admission rate on account of venereal diseases, and the figures are slightly larger than those of the preceding year. The surgeon reports that all War Department instructions with reference to these diseases have been carried out, supplemented by restriction to barracks of all cases undergoing treatment outside of hospital until they have ceased to be infective. He further states that the rates have been high, owing to local conditions. "On account of the delicate international relations existing here it is not believed that it will be practicable to institute any control over prostitution and prostitutes in the various concessions." This question has been taken up by this office at various times and it is believed that the military authorities are taking every possible step to control the evil.

The malarial rate is not large and shows little change from that of the preceding year. Owing to local conditions no extensive antimosquito work is practicable.

There have been no prevailing diseases except venereal.

The general sanitary condition is reported as "excellent, when due allowance is made for the lack of modern heating, plumbing, and lavatory conveniences."

CONCLUSION.

In closing, the department surgeon desires to say that general sanitary conditions hroughout the department are satisfactory. There has been a decrease in the numer of deaths, and had it not been for the extensive prevalence of dengue and the slight increase in the venereal rate the same remark would have applied to the morbidity.

It is interesting to note that over half the deaths in the department among white troops during the year occurred as a result of traumatism or drowning, and it is a still more interesting fact that practically 25 per cent of the total death rate in the same class of soldiers is made up by cases of suicide.

The question of Medical Department personnel for this department was fully discussed in the department surgeon's report to the department commander, and was by him embodied in his annual report which has already reached the Surgeon General's Office. When the personnel now under orders for duty with this command shall have reported, it is believed that all ordinary conditions can be successfully met.

The commissioned personnel has been generally efficient, and the department surgeon has been particularly pleased with the manner in which a number of the junior, and consequently untried, officers of the Medical Corps have acquitted themselves when it became necessary, owing to a deficient personnel, to place them in positions of responsibility which would not ordinarily have been given to officers of their rank and experience. The manner in which they have taken hold of and carried on their work has furnished another evidence of the value of the training given at the Army Medical School.

The work of the Hospital Corps has been generally satisfactory. As in all bodies of men of considerable size, there are many who could have been replaced with great advantage. It is desired to mention particularly the good work of many of the older noncommissioned officers, as well as other old and faithful soldiers who have not been so fortunate as to win their chevrons.

It is regretted exceedingly that the law does not permit compensation commensurate with the value of their services.

HAWAII.

The mean enlisted strength of the troops serving in Hawaii during the year 1915 was 8,572, as compared with 7,971 during 1914. Of these, 1,863 were colored. A remarkable feature in connection with the rates for Hawaii in comparison with those for the United States is that while the total admission rate, noneffective, discharge, and death rates are lower, yet the individual rates for the preventable diseases are somewhat higher, especially that for venereal diseases. The average number of days' treatment for each case was 13.11, as compared with 13.34 for the United States.

ADMISSION RATES.

The admission rate during 1915 was 568.94 for total enlisted men per 1,000, as compared with 523.27 for 1914. The rate for disease alone was 440.85 per 1,000 and that for external causes 128.09; that for disease in 1914 was 401.96 and for external causes 121.31.

CONSTANTLY NONEFFECTIVE RATES.

The constantly noneffective rate was 20.44 per 1,000 for all causes in 1915, as compared with 18.75 for 1914. The rate for disease was 16.39 and that for external causes 4.04 per 1,000, as compared with 14.33 for disease and 4.42 for external causes in 1914.

DISCHARGES ON CERTIFICATES OF DISABILITY.

The rate for discharges for disability was, for all causes, 10.92 per 1,000, 9.79 being for disease and 1.13 for external causes. In 1914 the total rate was 9.02, that for disease being 7.89 and for external causes 1.13 per 1,000.

DEATHS.

The death rate (total) was 3.04 per 1,000, that for disease being 2.25 and for external causes 0.79, as compared with a total rate of 1.63, 1.13 for disease and 0.50 for external causes per 1,000 in 1914. In actual numbers 27 deaths occurred among the enlisted personnel, 20 being due to disease and 7 to external causes. Two of these deaths from external causes were due to suicide; 1 from suffocation, strangulation; 1 from drowning, accidental; 1 from traumatism by crushing; 1 from homicide; and 1 from other external violence.

TABLE NO. 43.—*Influence of station on officers and enlisted men, Hawaiian Department, year 1915.*

Hawaiian Department.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Fort Kamehameha, Hawaii	444	668.92	360.36	18.65	18.65	6.76	....	25.41	18.65	4.01	......	1.50	......	1.46	2.19	0.55	1.52
Schofield Barracks, Hawaii	5,349	588.15	350.16	10.24	8.30	2.43	1.50	12.66	9.80	13.91	12.71	7.28	6.53	5.08	8.63	2.66	7.59
Fort Shafter, Hawaii	1,944	531.38	316.87	15.91	11.66	.51	.51	16.42	12.17	.33	......	.21	......	.12	.22	.08	.24
Fort Ruger, Hawaii	287	466.90	306.62	14.55	10.91	....	....	14.55	10.91	1.43	......	1.10	......	.52	1.12	.40	1.31
Fort De Russy, Hawaii	204	455.88	250.00	....	....	....	....	....	....	1.91	......	.56	......	.70	1.53	.21	.82
Fort Armstrong, Hawaii	112	446.43	232.14	18.35	18.35	....	....	18.35	18.35	.49	......	.22	......	.18	.40	.08	.35
Total officers and enlisted men	8,876	568.50	333.82	10.92	8.78	3.26	1.84	14.18	10.62	20.24	19.07	11.25	10.59	7.39	12.99	4.11	12.30
Total enlisted men	8,572	568.94	329.80	10.92	8.78	3.04	1.91	13.96	10.69	20.44	19.65	11.27	10.87	7.46	13.11	4.11	12.47

INVALIDING TO THE UNITED STATES.

In 1915 there were 142 cases invalided home; in 1914 there were 141, and in 1913 there were 106.

The diseases or conditions causing the highest number of cases to be invalided home were:

Mental alienation, 33; tuberculosis, 28; syphillis, 9; organic disease of the heart, 8; chronic alcoholism and epilepsy, 5 each; and 5 cases of enuresis.

Enlisted men invalided home from Hawaii, year 1915.

Cause.	Number of cases.	Per centage of total cases.	Duty.	Discharge on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
Mental alienation (paralysis of the insane, 4; dementia precox, 17; defective mental development, 5; other varieties, 7)	33	23.24		25	1		7
Tuberculosis: pulmonary, 27; Potts' disease, 1	28	19.72	3	3	1	1	20
Syphilis	9	6.34	3	3			3
Organic disease of the heart	8	5.63	1	7			
Chronic alcoholism	5	3.52		3			2
Epilepsy	5	3.52		5			
Enuresis	5	3.52		2		3	
Chronic articular rheumatism	4	2.82	1			2	1
Secondary results of injury	4	2.82	1	2			1
Gonorrhea	3	2.11	2	1			
Bunion	3	2.11		3			
Fracture	3	2.11		2			1
Exophthalmic goitre	2	1.41	1				1
Paraplegia	2	1.41		1			1
Hysteria	2	1.41		1			1
Goitre	2	1.41	1	1			
Chronic bronchitis	2	1.41		2			
Asthma	2	1.41		1			1
Dysentery	1	.70					1
Cerebrospinal meningitis, epidemic	1	.70		1			
Glaucoma	1	.70	1				
Otitis media	1	.70		1			
Rhinitis hypertrophic	1	.70		1			
Gingivitis	1	.70	1				
Intestinal indigestion	1	.70		1			
Peritoneal adhesions	1	.70		1			
Chronic nephritis	1	.70	1				
Eczema	1	.70	1				
Painful scar	1	.70	1				
Necrosis	1	.70					1
Periostitis	1	.70	1				
Arthritis	1	.70					1
Synovitis	1	.70	1				
Flat foot	1	.70					1
Incised wound	1	.70		1			
Lacerated wound	1	.70					1
Punctured wound	1	.70		1			
Dislocation	1	.70		1			
Total cases	142		20	70	2	6	44
Percentage of total cases		100.00	14.08	49.30	1.41	4.23	33.99

The following tabulation for enlisted men furnishes a comparison of general rates for Hawaii with the United States:

	Admission rate.		Noneffective rate.		Death rate.		Discharge rate.	
	1915	1914	1915	1914	1915	1914	1915	1914
Hawaii	568.94	523.27	20.44	18.75	3.04	1.63	10.92	9.02
United States	704.01	629.84	25.74	23.37	5.42	4.82	13.60	14.82

Table Nos. 43 and 74 give figures for all troops serving in Hawaii. The diseases causing the highest admission and noneffective rates among officers and enlisted men are shown in the following tabulations:

Admission rates for some of the principal diseases in the Hawaiian Department, American troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted men.	
	1915	1914	1915	1914
Venereal diseases	95.76	65.07	99.04	67.37
Bronchitis	29.63	32.65	28.93	32.87
Diarrhea and enteritis	26.36	26.85	24.85	26.60
Tonsillitis	19.83	15.24	19.95	15.18
Influenza	19.27	28.42	18.31	26.72
Furuncle	14.08	22.62	14.35	22.96
Constipation	13.52	17.42	13.77	17.69
Alcoholism	11.27	11.61	11.55	12.04
Appendicitis	10.59	6.89	9.92	6.90
Rheumatism, muscular	8.90	11.01	8.52	10.41
Gastritis, acute and chronic	7.89	5.92	7.93	5.65
Rhinitis, acute	7.44	1.94	7.47	1.51
Cellulitis	6.76	6.05	7.00	5.90
Mental alienation	4.39	3.63	4.55	3.64
Tuberculosis	3.49	3.02	3.62	3.01
Rheumatism, articular, acute and chronic	3.27	2.66	3.38	2.63
Lymphadenitis, nonvenereal	2.48	2.54	2.45	2.63
Enuresis	1.92	.97	1.98	1.00
Malarial fevers	1.69	1.33	1.75	1.25
Flat foot	.79	.48	.82	.50

Noneffective rates for some of the principal diseases in the Hawaiian Department, American troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted men.	
	1915	1914	1915	1914
Venereal diseases	4.78	3.41	4.95	3.5
Appendicitis	.71	.54	.67	.5
Bronchitis	.57	.69	.58	.7
Influenza	.38	.55	.37	.5
Diarrhea and enteritis	.38	.37	.37	.3
Tonsillitis, acute	.37	.26	.38	.2
Mental alienation	.36	.34	.35	.3
Tuberculosis	.27	.23	.28	.2
Enuresis	.23	.03	.24	.0
Rheumatism, articular, acute and chronic	.22	.21	.23	.2
Furuncle	.22	.36	.23	.3
Rheumatism, muscular	.18	.27	.18	.2
Alcoholism	.17	.14	.18	.1
Lymphadenitis, nonvenereal	.14	.09	.15	.1
Cellulitis	.13	.20	.13	.2
Constipation	.13	.19	.14	.1
Gastritis, acute and chronic	.13	.15	.13	.1
Rhinitis, acute	.07	.02	.07	.
Malarial fevers	.05	.03	.05	.
Flat foot	.02	.04	.02	.

SPECIAL DISEASES.

TYPHOID FEVER.

An epidemic of typhoid fever occurred at Schofield Barracks dur- ng the latter part of the year 1915, the last case of which occurred n February, 1916, to determine the incidence of which the surgeon ıt that post appointed a board of medical officers to investigate it arefully. The work was carried out under three heads, viz. first, a areful tabulation of the cases according to the form desired by this ffice; second, a survey of the food and water supplies; and, third, n attempt to establish the presence of a carrier.

The board, composed of Maj. H. D. Bloombergh and Lieuts. G. R. 'allender, R. W. Bliss, and R. H. Duenner, ably assisted by Capt. '. H. Foucar, of the Department Laboratory, Hawaiian Department, ıvestigated the following cases, which occurred on the dates specified:

o.	Date.	Name.	Sex.	Age.	Nationality, etc.	Place.
	1915.					
1	Oct. 15	A. H.[1]	Female	8	Japanese	Lieut Sears's quarters, First Infantry.
2	...do	J. F	Male	8	American	Son of Capt. Fair, Quartermaster Corps.
3	Oct. 25	F.[1]	...do	23	Soldier	Company F, First Infantry.
4	Oct. 27	O.[2]	...do	29	Japanese	Capt. Knight's quarters, First Infantry.
5	Oct. 28	I. Y.[1]	Female	26	.....do	Maj. Sorley's quarters, First Infantry.
6	...do	S	Male	24	Soldier	Company I, First Infantry.
7	Nov. 2	D	...do	19	.....do	Company E, First Infantry.
	Nov. 15	L	...do	24	.....do	Troop K, Fourth Cavalry, near First Infantry.
	Nov. 18	B	...do	23	White civilian	Civilian employee, Quartermaster Corps, near First Infantry.
	Dec. 24	U.[1]	Female	25	Japanese	Quartermaster camp, 7 miles from camp.
	1916.					
	Jan. 14	Y. F.[1]	Male	25	.....do	Lieut. Kieffer's quarters, Fourth Cavalry.
	Jan. 29	C	...do	30	Soldier	Company I, First Infantry.
	Feb. 20	T. S.[1]	Female	25	Japanese	First Infantry tailor shop.

[1] Transferred to other hospitals.

[2] Died in department hospitals.

At Schofield Barracks during the two years prior to October, 1915, ere have been no cases of typhoid fever and but one case of para- phoid fever in July, 1915.

Schofield Barracks in its entirety extends, roughly speaking, over square miles of territory. Locally it is known to consist of two ırts, the upper, old, or cantonment section is called Schofield Bar- cks, while the lower, new, or concrete portion is called Castner, ter the railroad station of that name. All of the cases of typhoid, th one exception, occurred in the Castner section, the excepted se (U.) arising at the quartermaster construction camp connected th the building of the new water-supply system, and distant from e post about 7 miles. The entire command was on maneuvers ar Fort Shafter from October 13 to October 23, when the enlisted en visited Honolulu, where typhoid fever is endemic. Notwithstanding this fact, it is believed from a study of the clinical records in cases 3, 6, and 7 that these soldiers most likely were infected in the post and not at Honolulu.

The water supply of Schofield Barracks proper is obtained from tunnels driven into the Waianae Range of mountains. The tunnels bring the water into reservoirs located about 1½ miles from the post, from whence it is pumped into tanks, which then supply the post by gravity. No cases of typhoid fever have occurred in the Schofield section.

The water supply of the Castner section at present comes from the South Fork of the Kaukonahua River, the water being conducted to the post by means of an extensive system of partly concreted tunnels, which pick up the stream high up in the Koolau Range and carry it through hillsides or in the open for a distance of 3 miles to a reservoir, whence a pipe line takes it to the post, a farther distance of 6 miles. While these typhoid cases were occurring this system of water supply had not been put into effect. The water supplied to the Castner and only occasionally to the Twenty-fifth Infantry section of Schofield came from the reservoir. This reservoir is formed by a dirt embankment across a gulch and is fed by surface water and small springs. The flow from this reservoir was augmented at times by water pumped directly from the South Fork by a pumping station 3½ miles from the post.

For the construction of the tunnel system a camp for employees was established in the vicinity of the line of construction. On an inspection trip made January 22, 1916, inquiry was made of various white and Japanese employees with the idea of determining the possibilities of a water infection of the Castner section. Water was pumped from time to time between September 14 and December 26 1915, from the open South Fork River into the main supply line t the post and twice in January, 1916, for three hours at a time. Th course of the river is through uninhabited regions, and the water i as safe as such waters can be.

It seems further that about December 22, 1915, a Japanese labore left the camp sick of some unknown condition and, a few days later a sick Japanese woman went to Honolulu from the camp. Abou this time the department of health in Honolulu gave the informatio that a Japanese woman formerly employed in Schofield Barracks wa sick at the Japanese hospital with typhoid fever. This seems to refe to one and the same woman and the name of the sick woman wa given as U. Unfortunately there is an irreconcilable conflict o dates as to the occurrence of this illness. During the construction c tunnels, the camp for Japanese workmen referred to was maintaine about 2 miles above the reservoir. The sanitary arrangements c the camp were very good. It was learned, however, that while thes workmen were supposed to use buckets for their excreta while workin in the tunnels, in spite of this fact the tunnels became soiled; furthe more, that about December 26, 1915, the tunnels were cleaned out an that this filth was swept into the reservoir.

It is an easy assumption to make (but one untenable on account the lack of exact information) that U. acquired her typhoid feve at the quartermaster camp along the tunnels, that she went out the camp by way of the tunnels, that she scattered the organisn along the route, and that this one case gave rise to cases 11, 12, and 1

But assuming for the sake of argument that this woman might have been so responsible, such fact would throw no light on the earlier cases unless she had acquired her disease from some earlier carrier in the camp.

On February 13, 1916, the following report of water examination was made by Capt. Foucar, in charge of the department laboratory:

> Fourth Cavalry supply (Schofield Barracks): No gas formation in three lactose fermentation tubes; colony count per cubic centimeter 0.25 (1 colony in 4 cubic centimeters).
>
> First Infantry supply (Castner): Gas production, No. 1 tube, 30 per cent; No. 2 tube, 30 per cent; No. 3 tube, 40 per cent; still active gas production at end of 24 hours in all three tubes; colony count per cubic centimeter 0.40.

Vegetables and fruits are supplied to the post very generally by Japanese, Chinese, and Korean hucksters. There are about 18 of these men who have their own wagons and peddle their supplies daily, with the exception of one or two. These men get all of their vegetables and fruits from gardens at Waialua, 8 miles from the post. These gardens are kept by six Chinese families, and are irrigated by running water from the Koolau range in a series of ditches. The gardeners live in wooden shacks by the side of the gardens and have dry earth closets in the rear of these gardens. They use no human excreta for fertilizing purposes and the gardens are especially well kept. The gardeners are in all instances Chinese who deny sickness. Two of the hucksters have their own gardens at Wahiawa. They also have dry earth closets and do not use human excreta for fertilizer, and show no evidence of ill health. There are two vegetable markets n the post, one run by an Hawaiian woman, who gets her vegetables from the gardens, and a Chinese who gets his vegetables from Wahiawa and Waialua. At times these markets and the post exchange and the different organizations purchase vegetables and other supplies from the markets in Honolulu.

Milk and cream are supplied to the post from two sources. All of the officers are supplied from the T. ranch, which is situated miles from Wahiawa and 6 miles from the post. The dairy is conducted in a fairly clean manner. Mr. T. has a herd of about 0 tuberculin-tested cows. These animals are fed, for the most part, on imported alfalfa, the grazing facilities of this country being very poor. The cows are milked twice daily in sheds with cement loors by four Japanese. There is running water in the milk shed nd the milkers are clean and fairly careful. The milk is milked into mall-mouthed tin pails and is taken to another building where it is ooled. The cooling system is crude, but answers the needs fairly well. The milk is then collected in glass bottles, which are kept lean by soap and water, and immediately delivered by means of a motor truck to the post. The cows are milked at 4 a. m. and 1.30 . m., and two deliveries made daily. All of the employees of this airy have been examined (by Widals), with negative results. The ifferent exchanges and restaurants connected with them get their milk from the Honolulu Dairymen's Association, delivered to the ost by motor truck.

For the sake of completeness the following table shows the result f examinations, made by the department laboratory, of the milk from the post dairy during 1915.

Date.	Butter fat.	Specific gravity.	Bacteriology count.
1915.	*Per cent.*		
June 3	3.2	1.029	10,000
June 7	3.0	1.029	1,200
June 17	3.2	1.030	16,000
July 7	3.4	1.030	1,250,000
July 22	3.6	1.030	9,000,000
Aug. 7	2.7	1.030	2,000,000
Aug. 19	3.2	1.030	20,000
Oct. 15	4.4	1.031	4,000,000

A bacteriological count made February 11, 1916, showed 246,000 bacteria per cubic centimeter.

The milk gave no reaction to tests for formaldehyde, salicylic, benzoic, and boric acids.

The following table gives the most essential features of the cases among the enlisted men:

No.	Name.	Immunization completed.
3	F.[1]	Jan. 22, 1914
6	S.	Feb. 10, 1914
7	D.	Feb. 23, 1915
8	L.	Apr. 1, 1913
12	C.	Mar. 16, 1915[2]

[1] Transferred to department hospital; no record.

[2] 2 doses only.

These cases were clinically typhoid fever. Case No. 8 was mild. Cases Nos. 6 and 12 were moderately severe. Case No. 7 was extremely severe and characterized by delirium. All recovered. None had hemorrhage. Case No. 6 had two relapses, and case No. 12 had phlebitis, left leg, and cystitis.

In the attempt to isolate a carrier, it was deemed advisable to make routine Widals of various servants and employees. All the servants of the officers of the First Infantry, numbering 70, mostly Japanese, were examined, and the reactions were negative except in three cases previously vaccinated. On the supposition that a carrier might be found in the restaurants at Castner, Widals were made on specimens of blood from the seven Chinese employees of the First Infantry restaurant and the four Chinese employees of the Fourth Cavalry restaurant. The reactions were negative.

On February 20, a case having been found in the First Infantry tailor shop in the person of a Japanese, Widals were made on specimens of blood taken from the nine employees of this establishment The reactions were negative.

In addition seven Widals were made on Japanese found at the quartermaster camp connected with the building of the tunnels for the water supply and also on the five employees of the post dairy The reactions were negative.

Systematic attempts were made to isolate carriers by stool and urine examinations. Eight examinations were made for typhoid o paratyphoid in this manner of the employees of the First Infantry tailor shop; 2 cooks of K Troop, Fourth Cavalry; 3 cooks from I Company; 3 cooks from I Company; and 2 cooks from E Company

First Infantry. Later stools or urine were examined of 8 hucksters, Chinese or Japanese, and of 13 employees of restaurants, the latter comprising all the enlisted men on duty in the restaurants in whose cases the Widal reaction would be useless on account of typhoid immunization. Additional examinations were made of suspect carriers prior to the establishment of this board, after the occurrence of the disease in B., a civilian employee. Careful stool examinations were made of all cooks and mess attendants at the prison stockade mess, 8 in number, with negative results.

In summing up the findings of the board, the following general review is given:

The first two cases occurred on October 15, 1915, in two children, both 8 years of age and attending the district school, which is located n the Schofield Barracks section. No other cases occurred in this school. The two children went back and forth from school in different wagons.

The board has been unable to trace any connection between the two cases which occurred on October 15 and the four succeeding cases which occurred between October 25 and 28, 1915, but it believes that the same cause was common to the first six cases.

Following the discovery of typhoid fever in the son of Capt. F., stool examinations were made of Capt. F., who had typhoid fever n 1898, and also of O., a house servant. These were negative for typhoid bacilli and their respective Widals were also negative.

After close scrutiny of the foregoing data, the board can not decide even the probable origin of the disease.

It is recognized that a single examination does not decide whether an individual is or is not a carrier.

As far as examinations are concerned, the results indicate that here is no carrier among the dairy employees, the hucksters, and he post exchange employees.

The evidence throws suspicion on the water supply, but the epidemic was not of the explosive type characteristic of water-borne disease.

Even if the disease disappears coincidentally with the installation f a new and improved water-supply system, at the same time some arrier connected with the food-supply system may have left the post r been transferred to some other duty.

While the report is submitted with no conclusions reached, the oard believes that considerable valuable material has been collected nd made available, in case further cases should develop.

The surgeon, Schofield Barracks, in transmitting the report of the oard, remarks:

> Though positive proof is not available, the surgeon is strongly of the opinion that a apanese carrier was responsible for all the cases cited in this report.

PARATYPHOID FEVER.

One case of this disease occurred.

MALARIA.

Fifteen cases were reported during the year.

SMALLPOX AND VARIOLOID.

None occurred.

MEASLES.

Twenty-two cases of measles occurred with two deaths.

INFLUENZA.

This disease caused the highest number of admissions, venereal diseases excepted, 171 cases being reported, with an admission rate of 19.27 per 1,000.

DYSENTERY.

Owing to the number of cases of amœbic dysentery occurring during the year, 20 in number, a board was appointed consisting of thre medical officers to investigate and report upon the cause and submi recommendations for the prevention of this disease in the future The board met at Fort Ruger, Hawaii, April 25, 1916, and their con clusions and recommendations may be summed up as follows:

That amœbic, or more properly entamœbic, dysentery is no especially prevalent in Oahu, and while sporadic cases do originat in the island, it can not properly be considered as endemic.

That its apparent incidence is understood to result principally fro importation of chronic cases, carriers, and persons in long incubatio period (average 64.8 days).

That the "carrier" theory is the method in which entamœbi dysentery is disseminated, but that its transmission is still unde termined.

That infection usually occurs through the ingestion of cyst-bearin food and drink either directly or contaminated through handling by carrier, or indirectly contaminated by rodent, fly, or other inse transferences of cysts from infected stools to food, or by the use night soil or polluted water in irrigating and washing garden produc

That the life of the cysts of entamœbic histolytica in water or o vegetables before losing their infective power is not known at th time.

That the usual bacteriological and chemical examination of wat and milk would be useless in attempting to determine the presen or absence of these cysts, and that after an examination nothing mo conclusive than an opinion as to whether the water was polluted wi sewage could be given.

That the local sanitary defects noted at the different posts visit is not directly related to the occurrence of the cases considered, b that the more scrupulous the individual and organization hygie the less frequent will be the cases of entamœbic infection.

That the prominent part played by carriers should be constant borne in mind in determining the details of administration pertaini to food and its preparation.

That the immediate proximity of latrines to the kitchens as se in the new barracks at Fort Kamehameha is considered dangerous a likely to rapidly disseminate any intestinal disease that might g a foothold in the organization even if contrary to the present con tion, both kitchens and latrines were properly screened.

The board recommended that—

All cooks in organizations from which patients showing entamœba istolytica in their stools are received have their stools examined once month for three months thereafter.

All enlisted men, and especially noncommissioned officers, be intructed regularly in hygiene of entamœbic dysentery especially with egard to the danger from allowing men with histories of abdominal ramps, diarrheas, etc., who might be carriers, as cooks and kitchen olice.

All medical officers be instructed to prepare complete histories of ll cases diagnosed as diarrhea, intestinal fermentation, colitis, enteris, gastritis, ptomaine poisoning, gastroenteritis following the form utlined above and that the stools of such cases be examined repeatdly for entamœba histolytica as invariably as the Wassermann reacon is now being requested in cases of venereal sore.

Increasing efforts be made everywhere in garrison and in the field o make latrines, kitchens, and dining rooms flyless and flyproof. he importance of this can not, in the opinion of the board, be overmphasized and it believes that apparent compliance with but real ndifference to the thorough execution of these principles is a sanitary enace.

Experimental work be instituted to determine whether the rat is a arrier of entamœba histolytica, and how long the cysts of that paraite retain their infective power after leaving their host.

BRONCHITIS.

There were 263 cases of bronchitis with an admission rate of 29.63.

TUBERCULOSIS.

There were 31 cases, 28 of which were pulmonary tuberculosis.

VENEREAL DISEASES.

There was a considerable increase in the venereal rate for 1915 over 14, 850 cases in all occurring, with an admission rate of 95.76. f these cases 237 were syphilis, 96 chancroid, and 517 gonorrhea.

ALCOHOLISM AND ITS RESULTS.

There were 100 cases admitted for this cause, with an admission te of 11.27, which was slightly lower than for 1914.

DIARRHEA AND ENTERITIS.

Two hundred and thirty-four admissions are chargeable to this use, producing an admission rate of 26.36.

HEMORRHOIDS.

There were 55 cases admitted during the year.

MENTAL ALIENATION.

Thirty-nine cases of mental alienation were reported, resulting in admission rate of 4.39, an increase over last year.

SANITATION.

The following sanitary defects are reported by the department surgeon:

FORT ARMSTRONG.

Septic tank too small (January report). War Department declines to act, as it i the policy to remove command to Fort Kamehameha and retain only a caretake (fifth indorsement, Mar. 13).

FORT DE RUSSY.

The old and temporary buildings are to be replaced by new construction, for whic bids have been invited. Estimates have been made to properly fly-proof kitchen c Tenth Company, Coast Artillery Corps (December report).

FORT KAMEHAMEHA.

Authority has been given to correct faulty location of windows in permanent no commissioned officers' quarters if source of discomfort (special sanitary report, Mar. 12

From special sanitary report of November, it would appear that the plans of ne permanent barracks overlooked essentials of sanitation and that changes in origin plan further increased difficulties. This has been made the subject of investigatio and report of sanitary inspector and is now receiving the special attention of th department commander. It is not known by whom the original plans were drawn an approved, but one can not conceive them obtaining the approval of a sanitarian.

The filling of the near-by swamps is urged by the surgeon as a sanitary matter i December report, and as the labor and expense involved is great, will require th action of the War Department.

FORT SHAFTER.

The recommendation of the surgeon (March report) to hold recruits on mainla until all likelihood of introduction of infectious diseases is passed, is impracticab and inadvisable.

In August report the following defects are noted: No kitchen and dining room f band of Second Infantry. Room so used inadequate in size and so situated that du from grounds of quartermaster stables blows into door. This is awaiting action of W Department. Drainage ditch through post imperfect and should be cemented assure free flow of water and prevent breeding of mosquitoes. Cement is now availa and rock crusher of post has been repaired, so that work can be done with post la (December report). Imperfect sewage plant for the present and proposed future ga rison. The present plant was intended for one battalion at peace strength. Prese garrison: One regiment of Infantry, one company of Engineers, one company of Sig Corps, all at war strength. Future garrison probably will be one or two additio regiments. Estimates ($140,000) for a proper main sewage system are being prepar (December special report). This should be installed prior to permanent constructi September report shows the need for a proper dispensary building. The need acknowledged by the department commander, but not approved for a tempora structure, as estimates for a permanent post have been submitted for action of C gress (November report). Inadequate water-closet facilities in cantonment barrac This has received as yet no action.

SCHOFIELD BARRACKS.

The necessity of sanitary provisions in advance of the arrival of troops is shown the many defects noted in the reports of Schofield Barracks.

The shortage of water supply has been one of constant complaint. With the cem lining of the ditch from Koolau Range to reservoir, it is believed this will end. I thought that this cement lining of ditch would have been provided for in the beginn had a hydraulic engineer, familiar with Hawaiian conditions, been in charge. T isposal of sewage offers an opportunity for similar comment regarding the employment f a competent sanitary engineer in planning a comprehensive system provided fore nowledge is available of what the garrison is to be. Defects in this respect are noted ı sanitary report of September, and it is believed will continue until remedies prooosed are carried out. A proper plan of post would not have constructed noncommisoned officers' quarters in the proximity of septic tanks when so much other land is vailable.

The following recommendations of surgeon on December report await action of igher authority:

"(*a*) Barracks to be built to replace casual (quarantine) camp."

With a post the size of Schofield Barracks infectious diseases are almost sure to be rought with each lot of recruits from the mainland. Should the enlistment period e decreased, such arrivals will be more numerous and more frequent than in the ast, and the need of proper quarantine greater.

"(*b*) That a guardhouse be erected in place of the stockade camp for general prisners."

The recent severe storms have demonstrated the need for this.

"(*c*) That permanent roads be built to replace the quagmires now used as roads."

This only indirectly affects sanitation.

"(*d*) That the makeshift and partial sewer system be extended to all parts of the ost and completely modernized."

"(*e*) That the septic tanks of the sewage disposal plant be covered to prevent fly reeding."

These last two are covered by remarks above as regards a competent sanitary engineer rnishing a proper plan and strict adhesion thereto.

DEPARTMENT HOSPITAL.

Quarters for medical officers and noncommissioned officers of Hospital Corps are quired, as stated in January report. The War Department has been asked for the oney to buy adjoining land and Congressional action is sought. Until that time ıblic buildings will be inadequate for command and the officers be obliged to live om 3 to 10 miles from hospital.

SANITARY PERSONNEL.

With an increase of 13 medical officers, the complaint of last annual report as to arcity for peace conditions no longer holds. The Hospital Corps is deficient, espeılly in competent noncommissioned officers, of whom there are but 31. These, with e 185 privates first class and privates, including lance corporals and acting cooks, ve but 2⅓ per cent of the command, a number barely sufficient to do the ordinary ıtine work of hospitals and dispensaries and not having time to devote to the neces'y field instruction at Schofield Barracks and hospital training at department spital. Should an active campaign become necessary, this shortage would most 'iously affect the sanitary conditions and consequent morale of the troops.

The needs of the Medical Department for war in Hawaii were set forth in a report to e department commander under date of October 1, 1915.

INSTRUCTION OF PERSONNEL.

With the arrival (Jan. 15, 1916) of 25 recruits, Schofield Barracks will be enabled to 'e some needed field instruction. In January, 1915, a class of 10 men was formed department hospital from selected privates of the various stations for a course in rsing. These men were returned to their stations after four months' training and re given certificates of having completed such special course of Army nursing. port of school inclosed. In November another class of 10 was organized, a greater mber not being available. It is intended to continue this training for six months. e organization of the United States Service Medical Society of Hawaii, of which all nmissioned officers of the Medical Department (excepting three) are members, for discussion of medico-military matters, it is believed will be of benefit to the Army vice as well as individuals. Paragraph 45, General Orders, No. 2, Headquarters, waiian Department, July 1, 1915, has resulted in a better study, especially by ior medical officers, from a military sanitary point of the conditions liable to be t in war.

ntil ambulance companies are given this department, proper field training and sequent sanitary preparations can not be gained.

HOSPITALS AND DISPENSARIES.

The construction of a nurses' quarters and clinic building have given much-needed additions to the department hospital. The alterations of one of the buildings into prison and detention wards, with hydrotherapeutic section, is under way, and will permit better handling of cases for which instituted. A laundry should be provided. Quarters for commissioned and married noncommissioned officers is an urgent need. It is not known what progress has been made in obtaining the necessary land adjoining the hospital upon which these buildings can be erected, but the need therefor is great, and the expense to the Government in the form of commutations for quarters makes a considerable item. As it is, commissioned and noncommissioned officers are obliged to reside at distances of 3 to 8 miles from their work, are under expense in going to and fro, and are not as immediately available as though they lived nearer. The estimates for these 14 sets of officers' and 6 sets of noncommissioned officers' quarters call for approximately $75,000.

A 240-bed hospital should be one of the permanent structures at Schofield Barracks Estimates have already been submitted for a plan which can be readily expanded. I is understood that the Surgeon General has asked for $150,000 for this purpose.

The construction of the Iwilei prophylactic station has already been mentioned As it was occupied only subsequent to June 22, its workings can not be told.

Additional room for dental surgeons and a larger detachment of Medical Departmen is required at the Fort Kamehameha dispensary. Until such space is available, thi post can not be made a base dental station, and the people entitled to treatmen must, in many instances, go either to department hospital or department headquarter for proper treatment.

A proper dispensary is an urgent need at Fort Shafter. The present shack offer but poor facilities for doing the great amount of regular dispensary work of a statio having a strength approximating 2,000 with many families of officers and enliste men in addition. Should additional regiments be stationed at this garrison, it i recommended that additional dispensaries be provided.

The establishment of a medical supply depot by authority of Secretary of Wa (Dec. 9, 1915), and actual organization in March, 1916, has added much to the pre paredness of the medical department in case of emergencies. Suitable storehouse and offices are needed. The reserve supplies, valued at approximately $105,000, hav not been entirely overhauled since their receipt in these islands in 1910, and this work hampered by reason of lack of room, and, in the past, shortage of help. In 1915 th leather equipments of the ordnance department for sanitary field units were ove hauled, and it was estimated that they had deteriorated many per cent (20–40 The condition of canvas and cloth material is not known. Stored as it has been i the past, and still is, in all kinds of structures, and wherever space is available, has n been in the interest of economy. Undoubtedly much of the medical supplies a deteriorated. As the advance copies of Manual Medical Department, which mak changes in supply tables, has just been received, these units will be overhauled earliest practical opportunity and be brought up to date. But proper storage facil ties must be provided. To have an efficient department of any kind requires prop personnel, with sufficient time to train, needed matériel stored and assembled whe it can be safeguarded and issued, and, in the case of the Medical Department, prop hospital facilities. In all these respects there is much lacking, and efforts to secu the same have met with only partial success.

PANAMA CANAL ZONE.

The mean strength of all troops, including officers, serving in the Panama Canal Zone during the year was 5,903, as compared with 2,076 for 1914.

ADMISSION RATES.

The admission rate for all causes was 859.22, that for disease being 709.81 and that for external causes 149.41, as compared with 938.35, 818.88, and 119.46, respectively, for the year 1914.

The diseases causing the highest admission rates were: Venereal diseases, 132.48; malarial fevers, 85.55; influenza, 46.76; bronchitis, 29.65; tonsillitis, 29.14; and furuncle, 26.09.

It is considered worthy of comment to call attention to the remarkable reduction in the malarial fever rate from 205.20 in 1914 to that given above, which would indicate that mearures looking to the protection against and destruction of mosquitoes are effective, if properly carried out.

Admission rates for some of the principal diseases for Panama Canal Zone, American troops, officers and enlisted men.

	Officers and enlisted men.		Enlisted men.	
	1915	1914	1915	1914
Venereal diseases	132.48	131.50	136.51	135.82
Malarial fevers	85.55	205.20	87.57	208.96
nfluenza	46.76	31.31	47.37	31.34
Bronchitis	29.65	18.30	29.89	18.91
Tonsillitis	29.14	46.72	29.36	47.76
Furuncle	26.09	12.52	26.57	12.94
Diarrhea and enteritis	16.60	15.41	16.78	15.92
ppendicitis	15.92	21.68	16.08	21.89
lcoholism (all)	15.25	9.63	15.73	9.95
ymphadenitis, nonvenereal	13.21	21.68	13.63	22.38
heumatism, muscular	9.32	8.19	8.31	8.46
Hemorrhoids	8.13	13.97	8.22	14.43
hinitis, acute	6.78	7.71	6.29	7.46
uberculosis (all)	5.93	2.41	6.12	2.49
lat foot	5.25	6.26	5.42	6.47
heumatism, articular (all)	4.41	4.34	4.54	4.48
leurisy	3.22	7.23	2.97	7.46
Dysentery	1.02	....	1.05	....

CONSTANTLY NONEFFECTIVE RATE.

The noneffective rate was 25.63 for all causes, as compared with 6.45 for 1914; that for disease being 21.66 per 1,000, and that for xternal causes, 3.97. The diseases causing the highest noneffective ates were: Venereal diseases, 5.05 per 1,000; malarial fevers, 2.27; ppendicitis, 1.06; and lymphadenitis (nonvenereal), 0.95.

Noneffective rates for some of the principal diseases for Panama Canal Zone, American troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted men.	
	1915	1914	1915	1914
Venereal diseases	5.05	6.62	5.21	6.83
Malarial fevers	2.27	7.67	2.32	7.79
Appendicitis	1.06	1.34	1.08	1.38
Lymphadenitis, nonvenereal	.95	1.41	.98	1.46
Influenza	.76	.64	.76	.66
Bronchitis	.64	.49	.64	.51
Tonsillitis	.53	.80	.54	.83
Flat foot	.41	.66	.43	.68
Furuncle	.40	.14	.40	.15
Tuberculosis (all)	.35	.16	.36	.17
Hemorrhoids	.24	.50	.25	.52
Diarrhea and enteritis	.23	.33	.23	.34
Rheumatism articular (all)	.21	.25	.21	.26
Alcoholism (all)	.20	.08	.20	.08
Rheumatism, muscular	.14	.16	.11	.16
Dysentery	.08		.08	
Pleurisy	.08	.31	.06	.32
Rhinitis, acute	.06	.04	.05	.04

INVALIDED TO THE UNITED STATES.

Ninety-nine cases were invalided home, 27 of which number were for tuberculosis, 15 for flat foot, 7 for mental alienation, and 4 each for gonorrhea, epilepsy, and organic heart disease.

Enlisted men invalided home from Panama Canal Zone, year 1915.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharge on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
Tuberculosis (pulmonary, 25; other tuberculosis, 2)	27	27.27		4	1		22
Flat foot	15	15.15	5	9			1
Mental alienation (defective mental development, 2; dementia precox, 3; other varieties, 2)	7	7.07		7			
Gonorrhoea	4	4.04	1	3			
Epilepsy	4	4.04		4			
Organic heart disease	4	4.04		3			1
Goitre	3	3.03		3			
Lymph stasis	2	2.02		2			
Appendicitis	2	2.02		2			
Intestinal adhesions	2	2.02		2			
Crushing	2	2.02		2			
Fracture	2	2.02		2			
Secondary results of injury	2	2.02		1		1	
Syphilis	1	1.01					
Cancer of mouth	1	1.01	1				
Diabetes mellitus	1	1.01		1			
Pernicious anemia	1	1.01				1	
Neurasthenia	1	1.01					
Functional neurosis, leg	1	1.01		1			
Cataract	1	1.01		1			
Optic atrophy	1	1.01		1			
Otitis media	1	1.01		1			
Cerebral thrombosis	1	1.01		1			
Varicocele	1	1.01		1			
Aphonia	1	1.01		1			
Chronic bronchitis	1	1.01	1				
Gastroduodenitis	1	1.01	1				
Inguinal hernia	1	1.01	1				
Intestinal obstruction	1	1.01					
Intestinal adhesions	1	1.01		1			
Arthritis	1	1.01		1			
Muscular weakness, thigh and leg	1	1.01		1			
Heat exhaustion	1	1.01	1				
Sprain of knee joint	1	1.01					
Strain, ligaments, arch of foot	1	1.01	1				
Hemiplegia, traumatic	1	1.01		1			
Total cases	99		12	56	1	2	2
Percentage of total cases		100.00	12.12	56.56	1.01	2.02	28.

Tables Nos. 44 and 73 give the figures for all troops serving in the Canal Zone, including officers, and Table No. 76 gives the rates for enlisted men only.

DISCHARGE ON CERTIFICATE OF DISABILITY.

The rate for discharge on certificate of disability was 13.03, as compared with 10.94 for 1914.

DEATHS.

The death rate for all causes was 2.46 per 1,000; that for disease being 1.31, and for external causes, 1.15. In all there were 15 deaths, 7 of which number were attributable to external causes.

TABLE No. 44.—*Movement of sick in Panama Canal Zone, years 1915 and 1914, officers and enlisted men, American troops.*

	Years.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		Total.	In hospital.	Total.	In hospital.
Ratio per 1,000 of mean strength:					
Admissions to sick report	1915	859.22	471.62	561.75	....
	1914	938.35	709.54	677.75	....
Discharges on certificate of disability	1915	13.03	....	11.00	....
	1914	10.94	....	9.04	....
Deaths	1915	2.46	....	1.31	....
	1914	3.21	....	.46	....
Total losses	1915	15.15	....	12.31	....
	1914	14.15	....	9.50	....
Noneffective	1915	25.63	15.74	16.41	10.41
	1914	36.45	27.47	25.88	19.28
Average number of days lost:					
For each soldier	1915	9.35	5.75	5.99	3.80
	1914	13.30	10.02	9.45	7.04
For each case	1915	10.89	12.18	10.66	....
	1914	14.18	14.13	13.94	....

PORTO RICO.

The troops are all recruited from and partly officered by native Porto Ricans. The regiment is commanded by a United States Army officer. The sanitary work in connection with this organization is in charge of a medical officer from the regular corps and a medical officer from the Medical Reserve Corps. The two garrisoned posts have a mean strength of 719 officers and men.

ADMISSION RATES.

The admission rate for all causes in 1915 was 552.16, as compared with 615.28 in 1914; for disease, 496.52 as compared with 534.65, and for external causes, 55.63 as against 80.62 in 1914.

An improvement in health conditions among the troops is evidenced by the reduction in the rates for 1915 over the year 1914. It is regrettable that the rate for venereal diseases is higher this year, as compared with 1914 which showed an appreciable reduction over 1913, these diseases causing the highest admission as well as the highest noneffective rate, dengue fever taking second place, with rates of 84.84 and 76.50 per 1,000, respectively.

NONEFFECTIVE RATES.

The noneffective rate for all causes is also slightly higher than for the preceding year, being 22.36 for 1915, as compared with 21.64 for 1914. The rate for disease was 20.57, as compared with 18.93 for 1914.

It will be noted that there was a marked decrease in the malarial rate.

Some of the principal diseases, with the admission and noneffective rates as compared with the preceding year, are shown in the following tabulation:

Admission and noneffective rates per 1,000 of mean strength for the most prevalent diseases among officers and enlisted men in Porto Rico.

	Admission rates.		Noneffective rates.	
	1915	1914	1915	1914
Venereal diseases	84.84	66.48	4.57	3.84
Chancroid and results	26.43	16.97	1.68	1.19
Gonorrhea and results	33.38	18.39	1.56	.75
Syphilis and results	24.90	31.12	1.33	1.89
Dengue	76.50	8.49	3.94	.11
Acute abscess and cellulitis	44.51	50.92	1.16	.90
Diseases of the lymphatic system	31.99	19.80	1.06	.71
Rhinitis, acute	26.43	115.98	.40	1.38
Furuncle	23.64	15.56	.45	.38
Dysentery	22.25	7.07	.56	.21
Diarrhea and enteritis	19.47	36.78	.37	.75
Rheumatism, muscular	11.13	9.90	.19	.28
Malarial fevers	8.34	12.73	.34	.23
Febricula and undetermined fevers	6.95	1.41	.12	.02
Rheumatism, articular (all)	5.56	11.32	.42	.32
Ankylostomiasis	5.56	5.66	.26	.33
Tonsillitis	2.78	12.73	.05	.16
Smallpox	1.39	2.83	.22	.17
Tuberculosis	1.39	1.41	.18	.43

DISCHARGES ON CERTIFICATE OF DISABILITY.

The rate for discharge for disability was 7.34 per 1,000 for disease for 1915, as compared with 8.97 for diseases in 1914.

DEATHS.

The death rate was 4.17 per 1,000, there being three deaths during the year, two due to disease and one to injury. In 1914 there were also three deaths, all due to disease.

SPECIAL DISEASES.

YELLOW FEVER.

The surgeon at San Juan, P. R., in September, 1915, called attention to the existence of several cases of febrile disease coming under his observation and resembling in certain features, yellow fever. He expressed the opinion that the so-called "seven-day fever," "dengue," and "black-water fever" as they exist in Porto Rico, were possibly all closely related to yellow fever, and accordingly so tentatively diagnosed his cases.

On further study the diagnosis of yellow fever in these cases was not confirmed by either the local health authorities or by the Surgeon General of the Army, who in person investigated the matter very thoroughly upon the request of the Bureau of Insular Affairs.

CHINA.

The mean strength of all troops, including officers, serving in China during 1915 was 1,378. This force consisted of Infantry, a detachment of Signal Corps, Hospital Corps, and noncommissioned staff, all white.

ADMISSION RATES.

The admission rate for all causes was 1,438.32, that for disease 1,328.74 and that for external causes 109.58, which are, with the exception of the latter, all higher than for the year 1914. The diseases causing the highest admission and noneffective rates are shown in the following tabulations:

The principal diseases for China—Admission rates for American troops, officers and enlisted men.

	Officers and enlisted men.		Enlisted men.	
	1915	1914	1915	1914
Venereal diseases	488.39	381.30	504.12	396.37
Constipation	80.55	50.00	83.15	56.35
Tonsillitis	77.65	40.33	78.65	41.07
Diarrhea and enteritis	48.62	57.74	47.94	57.31
Alcoholism (all)	32.65	39.41	33.71	41.07
Influenza	29.03	20.16	26.22	19.10
Bronchitis	27.57	30.25	26.22	38.05
Lymphadenitis, nonvenereal	27.57	18.33	28.46	19.10
Rheumatism, muscular	24.67	31.16	24.72	32.47
Malarial fevers	23.22	22.00	21.72	20.06
Furuncle	15.24	7.33	15.73	7.64
Rheumatism, articular (all)	10.88	4.58	11.24	3.82
Appendicitis	10.16	8.25	9.74	8.60
Tuberculosis (all)	5.08	6.42	5.24	6.69
Mumps	5.08	.92	5.24	.96
Pneumonia (lobar)	4.35	10.08	4.49	10.51
Pleurisy	4.35	.92	4.49	.96
Dysentery	1.45	9.17	1.50	8.60

Noneffective rates for American troops, officers and enlisted men.

	Officers and enlisted men.		Enlisted men.	
	1915	1914	1915	1914
Venereal diseases	13.57	15.39	14.01	16.03
Lymphadenitis, nonvenereal	1.15	1.06	1.19	1.10
Tonsillitis	1.06	.41	1.07	.41
Tuberculosis (all)	.70	.92	.73	.96
Constipation	.69	.39	.71	.40
Rheumatism, muscular	.57	.47	.56	.49
Bronchitis	.53	.39	.53	.37
Diarrhea and enteritis	.48	.40	.46	.41
Malarial fevers	.42	.29	.40	.27
Mumps	.40	.02	.41	.02
Influenza	.38	.32	.35	.27
Alcoholism (all)	.37	.34	.38	.36
Appendicitis	.31	.51	.31	.53
Dysentery	.28	.31	.29	.29
Furuncle	.28	.04	.29	.04
Pneumonia (lobar)	.27	.57	.28	.60
Rheumatism, articular (all)	.23	.12	.23	.07
Pleurisy	.23	.01	.24	.01

DISCHARGE ON CERTIFICATE OF DISABILITY.

The discharge rate for disability was 9.74 per 1,000 for all causes.

DEATHS.

The death rate was 4.35 per 1,000, the rate for disease being 2.90, and that for external causes 1.45. The death rate was lower than for 1914, being 5.50 for the latter year.

Tables Nos. 3, 73, and 76 give all figures for the troops serving in China for the year 1915.

The rates would indicate that the general health conditions have decidedly deteriorated during the year 1915, although not so marked as last year (1914) over 1913. An appreciable increase in the admission rate for venereal diseases is noted, with a decrease, however, in the noneffective rate for the same disease.

TABLE NO. 46.—*Comparison of rates for the several countries garrisoned by the United States Army.*

COMPARISON OF RATES (PER 1,000 OF MEAN STRENGTH) YEARS 1914-15, OFFICERS AND ENLISTED MEN.

	Admissions.		Noneffective.		Discharges.		Deaths.	
	1915	1914	1915	1914	1915	1914	1915	1914
American troops, excluding officers:								
United States	696.04	622.28	25.77	23.41	13.60	14.82	5.31	4.87
Alaska	378.65	408.14	8.71	10.17	11.80	8.74	2.54	8.35
Philippine Islands	976.88	865.79	28.70	30.56	23.22	10.62	2.87	3.64
China	1,438.32	1,063.24	34.45	28.88	9.74	3.82	4.35	5.50
Hawaii	568.50	523.58	20.24	18.69	10.92	9.02	3.26	1.81
Panama, Canal Zone	859.22	938.35	25.63	36.45	13.03	10.94	2.46	3.21
The Army	735.97	657.73	25.77	23.98	14.26	12.99	4.57	4.53
Native troops (enlisted):								
Porto Rican Regiment	555.07	615.28	22.78	21.64	7.34	8.97	4.41	4.24
Philippine Scouts	573.84	714.14	15.68	20.30	11.44	9.56	2.54	3.19

	Venereal diseases.				Malarial fevers.				Tuberculosis.			
	Admissions.		Noneffective.		Admissions.		Noneffective.		Admissions.		Noneffective.	
	1915	1914	1915	1914	1915	1914	1915	1914	1915	1914	1915	1914
American troops, including officers:												
United States	79.95	85.84	3.84	3.58	12.37	10.74	0.27	0.24	2.68	2.72	2.33	2.24
Alaska	34.31	20.88	.53	.29	1.27	2.09	.01	.04	1.27	1.04	.15	.33
Philippine Islands	176.88	174.86	7.70	9.78	61.68	46.97	1.13	1.29	6.08	7.05	.47	.60
China	488.39	381.30	13.57	15.39	23.22	22.00	.42	.29	5.08	6.42	.70	.92
Hawaii	95.76	65.07	4.78	3.41	1.69	1.33	.05	.03	3.49	3.02	.27	.23
Panama, Canal Zone	132.48	131.50	5.05	6.62	85.55	205.20	2.27	7.67	5.93	2.41	.35	.16
The Army	103.07	105.73	4.59	4.51	22.18	20.16	.48	.57	3.44	3.34	1.79	1.78
Native troops:												
Porto Rican Regiment	89.57	66.48	4.82	3.84	8.81	12.73	.35	.23	1.47	1.41	.19	.43
Philippine Scouts	34.33	57.57	1.96	3.66	80.11	201.80	1.54	3.48	4.54	6.57	.58	.82

ARMY TRANSPORTS.

The sanitary condition of the Army transports and the accommodations provided for troops and passengers have been satisfactory.

With one exception, hospital accommodations were reported ample. On the homeward voyage of the *Sheridan* in April and May, 86 patients were received by transfer from Manila and Honolulu, in addition to the casuals admitted from time to time from command, necessitating the placing of 20 or more patients in the troops quarters of hold.

During the voyage of the *Sherman* from San Francisco to Manila in January, 16 cases of mumps and 19 cases of measles occurred. On the next voyage of the same transport in April, 22 cases of mumps and 3 cases of measles developed.

Twenty-six cases of mumps developed on the transport *Thomas* between February 5 and March 8 while en route to Manila. One case occurred at Manila, and one case during the return voyage.

A case of smallpox was found among casuals coming from Fort Mills, P. I., on October 14, prior to the sailing of the *Logan* from Manila. The patient was taken to the San Lazaro Hospital, and isolation ward and quarters of casuals disinfected.

The following is a statement of enlisted men carried between the several ports during the year:

San Francisco to Honolulu	3, 978
San Francisco to Manila	5, 445
Honolulu to Manila	106
Manila to Nagasaki	8
Manila to Honolulu	21
Manila to San Francisco	6, 397
Honolulu to San Francisco	1, 946
Nagasaki to San Francisco	273
Total	18, 174

Some difficulty has been experienced by transport surgeons in obtaining from the casual officer, prior to arrival at port of destination, the health records (descriptive lists) of enlisted men from the Navy and Marine Corps given transportation on Army transports. This office has recommended that health records be sent to the ship's surgeon instead of to the casual officer.

GENERAL HOSPITALS.

LETTERMAN GENERAL HOSPITAL, SAN FRANCISCO, CAL.

This hospital is used as a base hospital for the Philippines and Hawaii; a post hospital for the Presideo, San Francisco, Fort Winfield Scott and several smaller posts in the harbor of San Francisco, and a general hospital for the western part of the country. It is the largest general hospital in the Army.

During the year the following new buildings have been completed: Addition A to nurses' dormitory, ward for special surgical cases, garage, and storehouse for combustibles.

The number of patients admitted during the year, including civilians and general prisoners, was 3,195, being an increase of 178 over the preceding year. There were 183 cases remaining in hospital December 31, 1914, making a grand total of 3,378 patients treated in the hospital during the year. Of this number 2,433 were officers and enlisted men, 46 general prisoners, and 899 others. There were 1,940 medical cases, 907 surgical, 293 venereal, and 234 mental. The daily average number of patients was 283.86. Of this number 21.28 were officers, 214.38 enlisted men, 4.63 general prisoners, and 43.58 others. The average number of days in hospital for each case was as follows:

	Officers.	Enlisted men.	General prisoners.	Civilians.	
				Male.	Female.
Medical	46.00	34.83	26.45	20.75	17.00
Surgical	56.58	21.17	46.36	15.23	11.89
Venereal	74.00	34.10	50.50	35.77	21.00
Mental	58.00	65.61	130.00	26.62	4.00

The following tables show the movement of the sick, together with the principal sources of admission, during the calendar year 1915:

	Officers and enlisted men.	General prisoners.	Civilians.	Total.
ADMISSIONS.				
Command	122	....	27	149
Transfer	2,115	41	16	2,172
Otherwise	54	....	820	874
Remaining, 1914	142	5	36	183
Total	2,433	46	899	3,378
DISPOSITIONS.				
Duty	1,410	26	6	1,442
Died	35	1	36	72
Discharged for disability	474	....	....	474
Deserted	10	....	....	10
Discharged, expiration of term	25	2	....	27
Transferred to Government Hospital for the Insane	21	....	....	21
Transferred to Fort Bayard, N. Mex	93	....	....	93
Transferred to other hospitals	8	2	1	11
Otherwise disposed of	85	6	803	894
Remaining, 1915	272	9	53	334
Total	2,433	46	899	3,378

There were 72 deaths in all during the year, 35 officers and enlisted men, 1 general prisoner, and 36 civilians and others. The principal causes for these deaths are given below:

Tuberculosis of the lungs	8
Cancers and other malignant tumors	4
Simple peritonitis (nonpuerperal)	4
Bright's disease	4
Purulent infection and septicemia	3
Organic diseases of the heart	3
Broncho-pneumonia	3
Diseases of the intestines	3
Simple meningitis	2
Cerebral hemorrhage (traumatic)	2
Pericarditis	2
Pneumonia (lobar)	2

In addition to the above list 4 civilians were suffocated in burning building.

There were 474 discharged on certificate of disability. Of this number 403 were not in line of duty and 71 in line of duty. The principal causes were as follows:

Mental alienation	125
Diseases of the organs of locomotion	65
Tuberculosis of the lungs	39
Epilepsy	24
Organic diseases of the heart	23
Other diseases of the nervous system	16
Other external violence	16
Syphilis	14
Neuralgia and neuritis	12
Diseases of the bladder	12
Gonococcus infection	10
Diseases of the joints	10

The following is a statement of the admissions and dispositions of insane patients during the year:

Movements of the insane.

Disposition.	Officers and enlisted men.	General prisoners.	Others.	Total.
Returned to duty	9	2		11
Left hospital			3	3
Discharged on certificate of disability at this hospital	130			130
Died	2		2	4
Transferred to recruiting officers for disposition	8			8
Transferred to the Government Hospital for the Insane	21			21
Sent home for discharge	6			6
Discharged without honor for fraudulent enlistment	1			1
Total	177	2	5	18

An active surgical clinic is maintained at this hospital, the following being a condensed tabular statement of the surgical operations:

Operations.

Operations.	Officers.	Enlisted men.	Total.	Retired officers.	Retired enlisted men.	General prisoners.	Army Nurse Corps.	Civilians.	Total.	Grand total.
Cranium		2	2							2
Face		1	1					1	1	2
Neck		5	5		2			7	9	14
Upper extremity		21	21	1		1		12	14	35
Thorax		7	7	1	1			3	5	12
Abdomen (laparotomy)	9	106	115	2	4	6	2	86	100	215
Genito-urinary	4	35	39	1		3		18	22	61
Rectum and anus	6	30	36		1			11	12	48
Gynecological, internal							1	64	65	65
Gynecological, external								61	61	61
Lower extremity	18	50	68		1			17	18	86
Major (not included)								3	3	3
Minor (not included)	2	76	78		6	16		38	60	138
Obstetrical								29	29	29
Total	39	333	372	5	15	26	3	350	399	771

Seven hundred and seventy-one operations were performed, as against 528 last year (the eye, ear, nose, and throat cases not included), an increase of 243. In addition and not listed in the above statement, there were 5,165 dressings done and emergency cases treated in the dressing room of the operating pavillion, and 8,240 in the dressing room of the surgical ward for infected cases. There were also made 163 gynecological and obstetrical examinations. There was a total of 50 confinements cared for during the year, one of which, puerperal eclamptic case, resulted in death.

On September 6, 1915, orthopedic work was begun and 42 cases were treated.

The following is a statement of the work done in the eye, ear, nose, and throat clinic:

	Hospital cases.	Out cases.	Total.
Officers	68	124	192
Enlisted men	501	296	797
Families of officers and enlisted men	184	422	606
Civilian employees	11	46	57
Army Nurse Corps	1	66	67
Civilians, including Civil War veterans	35	83	118
Total	800	1,037	1,837

There were 1,837 cases treated, and 463 operations performed during the year.

There were 368 cases of all classes refracted.

The dentist on duty at the hospital reports 1,248 persons treated for affected teeth, with 3,363 sittings.

A large department laboratory is maintained for the use of the hospital and for the special work of the posts in the Western Department. The report of the work done will be found under the general head of "Laboratories."

The mean strength of the personnel on duty at this hospital for the year was:

Officers	12.10
Dental surgeons	2.02
Acting dental surgeons	.09
Army Nurse Corps	43.56
Hospital Corps	162.00

There were 27 civilians employed by the Medical Department, and 11 by the Quartermaster Corps on duty in the hospital during the year.

WALTER REED GENERAL HOSPITAL.

This hospital is located at Takoma Park, D. C., near the northern border of the District. It serves as the general hospital east of the Mississippi and as the post hospital for Washington Barracks. The patients from the latter place are transferred in automobile ambulances of which this hospital has, at present, four, while another is being constructed.

As heretofore, there are but two sets of officers' quarters at the hospital, although nine medical officers are assigned to duty there. The rental of quarters for these officers is an item of large expense and results in their being unsatisfactory and inconveniently housed both for their comfort and their work.

The reservation and buildings are kept in good condition, though improvements are needed on the roads and it is hoped that they can be accomplished during the coming spring or summer. An improvement recently completed is a new concrete roadway back of the main hospital building, which, together with its drainage system, serves not only to make the service of wagons easier and cleaner, but also to divert much surface drainage that formerly ran directly toward, and partly through or into the basement.

Two new wards for enlisted men have been opened since the time of the last annual report, and are found very satisfactory. Another small ward is completed and available for use but it has not yet been put into use. Work is progressing on a basement ward to be used for psychopathic cases, and it should be completed by March.

The X-ray laboratory has been remodeled and the following improvments made:

(1) Additional apparatus installed—Coolidge tube, verticle roentgenoscope, overhead wiring system, Alberene tank, illuminating viewing box.

(2) Complete renovation of X-ray room; installation of labyrinth to dark room.

(3) Two hundred and twenty-four cases were X-rayed (some retaken many times for comparison). Excellent work is now being done.

The laboratory does only simple routine work for clinical purposes, all Wassermann tests, blood cultures, laboratory examination of pathologic specimens, and other special work being done at the Army Medical School. It would not be possible to do it all here without an increase of personnel, and the school's work is very satisfactory.

Requisition has been made for apparatus and supplies that will permit of the undertaking of the new work on blood chemistry especially in cases of renal disease, which is now coming into use. This work will be taken up as soon as possible.

The hydrotherapeutic department has been put to much use of late and has proven very satisfactory. At present the hospital is fortunate in having the services of an enlisted man who is skilled in that work. He receives extra pay from the hospital fund. It is desirable and just that the Government should allow extra pay for the position. The work is arduous as well as skilled and is entirely for the benefit of the Government, not for the benefit of the detachment on duty here, whose fund now pays.

A similar opinion is entertained as to the pay of maids for work in the rooms of women patients. Maids are necessary, the detachment (soldiers) can not be expected to work in women's rooms, yet their fund pays for maids.

The hospital messes, both for sick officers and for enlisted men are excellent. It is doubted if they could be much better. They are now run at very much lower cost than formerly.

The discipline is, in general, very good, but the hospital's nearness and convenience to a metropolis and the monotony of sickness make for derelictions in the way of drink by too many Hospital Corps men and patients. Increased efforts are to be made to provide interest and amusement at the hospital. It is thought that a gymnasium should be established for the use of men on duty here. Among these are some excellent enlisted men, but many are not of as good type as could be desired. It is doubted, however, if the average can be made higher while the pay remains what it is now.

In view of the certain increase in the use of automobile ambulances, it is desirable that there be established the grade of chauffeur sergeants in the Hospital Corps.

There is a shortage of one man in the personnel of the Quartermaster Corps at this station. The allowance of 12 men for this post is inadequate, necessitating the detail of 6 Hospital Corps men for this duty.

The work of the hospital is somewhat interfered with by details of officers to work outside the hospital, such as instruction work at the Army Medical School. These details have not in any way interfered with the adequate and proper care of the sick, but they do occasion inconvenience in such internal matters as officer-of-the-day duty, instruction of the Hospital Corps, disability boards, consultation boards and committees and attendance at Journal club and clinical meetings. These last two duties have been added within a few months to those formerly obtaining. They are thought to be helpful to the medical officers as well as beneficial to the patients, and to make for the increased efficiency of the hospital. The clinics have also been attended by the postgraduate students at the Army Medical School. Medical and surgical clinics are held alternately.

The members of the Army Nurse Corps on duty here have in general rendered excellent service. The number of nurses is adequate for ordinary duties but is a bit small for times of stress and to provide for sickness among the nurses and for their leaves of absence.

Because of the peculiar plan of this hospital, nursing is arduous here and a larger proportionate number of nurses is needed than in a hospital built on the Letterman plan.

The number of patients admitted during the year, including civilians, was 1,175. This was an increase of 191 over the preceding year.

The average number of days in hospital for each case was as follows:

	Officers.	Enlisted men.	Civilians.	
			Male.	Female.
Medical	35.23	22.23	18.08	15.00
Surgical	21.82	38.13	9.19	15.94
Venereal	11.50	40.54	21.00	....
Mental	24.00	44.75	13.00	....

The following table shows the movement of the sick, together with the principal sources of admission, during the calendar year 1915, including civilians. No general prisoners were admitted.

	Officers and enlisted men.	General prisoners.	Civilians.	Total.
Admissions:				
Command	107	....	9	116
Transfer	589	....	5	594
Otherwise	72	....	393	465
Remaining Dec. 31, 1914	78	....	15	93
Total to be accounted for	846	....	422	1,268
Dispositions:				
Duty	608	....	7	615
Died	16	....	8	24
Discharged for disability	64	....	....	64
Deserted	2	....	....	2
Discharged, expiration of term	5	....	....	5
Transferred to Government Hospital for Insane	5	....	....	5
Transferred to Fort Bayard, N. Mex	12	....	....	12
Transferred to other hospitals	....	....	....	....
Otherwise disposed of	49	....	386	435
Remaining Dec. 31, 1915	85	....	21	106
Total	846	....	422	1,268

There were 24 deaths. Of this number 12 were enlisted men, 3 were retired officers, 1 a retired soldier, 7 civilians, and 1 member of the Army Nurse Corps.

The following were the causes of death:

Post operative shock	3	Pernicious anemia	1
Diabetes, mellitus	2	Aortic regurgitation	1
Nephritis, parenchymatous	2	Cancer of stomach	3
Nephritis, interstitial	2	Aortic aneurism	1
Lobar pneumonia	1	Ataxic paraplegia	1
Sarcoma	2	Broncho pneumonia	1
Tumor of cecum	1	Cerebral hemorrhage	1
Tuberculosis, pleural cavities and peritoneum	1	Renal insufficiency and tuberculosis of lungs and bladder	1

There were 64 discharged on surgeons' certificate of disability. Of this number 40 were in line of duty and 24 were not in line of duty.

The causes were as follows:

Causes of disability.	Yes.	No.	Total.
Vesiculitis, seminal	....	2	2
Psychopathic constitution	....	5	5
Injuries and diseases of organs of locomotion	7	3	10
Pain and tenderness, post operative	1	....	1
Diseases of organs of vision	1	1	2
Arthritis, gonorrheal	....	3	3
Landry's paralysis	1	....	1
Enuresis	....	1	1
Syphilis	....	1	1
Paresis	1	....	1
Ankylosis	2	....	2
Arthritis, productive	1	....	1
Valvular heart disease	2	....	2
Lymph stasis	1	....	1
Abscesses, venereal	....	1	1
Ulcer, gastric	....	1	1
Spondylitis, traumatic	1	....	1
Carcinoma of rectum, colloid	1	....	1
Diseases of ear	2	....	2
Drug habit, cocainism	....	1	1
Hyperthyroidism	2	2	4
Caries of spine, tubercular	1	....	1
Adhesions, post operative	1	1	2
Fistula, post operative	1	....	1
Epilepsy	1	1	2
Gastric neurosis	1	....	1
Regurgitation of food, post operative	1	....	1
Aphonia	1	....	1
Amputations	1	....	1
Empyema	2	....	2
Paranoid state	....	1	1
Fracture of vertebrae	2	....	2
Neuritis	1	....	1
Exophthalmic goitre	1	....	1
Dysentery, entamœbic	1	....	1
Paralysis and total deafness	1	....	1
Tuberculosis, right ankle	1	....	1
Total	40	24	64

The following is a statement of admissions and dispositions of insane patients during the year:

	Officers and enlisted men.	Civilians.
Returned to duty	3	....
Left hospital	....	3
Discharged on surgeons' certificate of disability	3	....
Transferred to Government Hospital for Insane	5	....
Left hospital on sick leave	1	....
Discharged	1	....
Remaining	1	....
Total	14	3

An active surgical clinic is maintained at the hospital, the following being a condensed tabular statement of the surgical operations:

	Officers.	Enlisted men.	Total.	Retired officers.	Retired enlisted men.	Accepted recruits.	General prisoners.	Army Nurse Corps.	Civilians.	Total.	Grand total.
Eye	2	2	4						12	12	16
Nose	32	84	116	1					45	46	162
Ear	1	4	5						8	8	13
Throat	8	24	32					1	148	149	181
Face		5	5								5
Neck	1	1	2						1	1	3
Upper extremity		8	8						7	7	15
Thorax		1	1						2	2	3
Abdomen, laparotomy	11	39	50	1	2				46	49	99
Gynecological, external									33	33	33
Gynecological, internal									8	8	8
Lower extremity	3	14	17						4	4	4
Major, not included	2	7	9					4	1	5	14
Minor, not included	10	44	54						24	24	78
Total	70	233	303	2	2			5	339	348	651

Included in this list are 40 operations for appendicitis, 24 for hernia, 15 for hemorrhoids, and 44 gynecological. Four women were delivered at term. Of operations performed, 3 were followed by death.

The following is a statement of the work done in the laboratory during the year:

Examinations of—	
Urine	3,714
Blood	767
Sputum	842
Feces	1,029
Stomach contents	109
Urethral discharges	427
Miscellaneous	283
Total	7,171

The following is a statement of the apparatus in use and the work done in the hydrotherapy plant and gymnasium during the year. There are four rooms occupied.

Apparatus in use:	
Punching bag and platform	1
Rowing machine	1
Weight lifting machine	1
Medicine balls	1
Indian clubs, pairs	5
Boxing gloves, sets	1
Added during 1915—	
Dumb-bells, pairs	3
Plinth	1
Baking apparatus:	
Body baking apparatus	1
Local baking apparatus	2
Electric vibrator	1

Baths:	
Cabinet	1
Needle and shower	1
Douche jet	1
Tub	1
Sitz	1
Carbonated	1
Pack, hot, cold, or dry	1
Drip sheet	1

SUMMARY OF TREATMENTS GIVEN.

Baths:	
Needle and shower	3,096
Douche jet	789
Douche, Scotch	2,847
Douche, fan	1,923
Douche, perineal	144
Tub	387
Carbonated	32
Sitz	63
Pack, cold	89
Pack, hot wet	132
Electric cabinet	2,044
Vibration	731
Massage	4,003
Baking	1,643
Gymnasium	1,164
Number of patients treated	156
Patients remaining under treatment, Dec. 31, 1915	27
Total	183

Two attendants, members of the Hospital Corps, gave the treatments the greater part of the year. During the summer only one attendant was available. One of the present attendants is very proficient. His assistant is still under instruction.

The following is a statement of the work done in the eye, ear, nose, and throat clinic:

Officers and enlisted men	408
Families of officers and enlisted men	154
Civilian employees of the Government	14
Army Nurse Corps	6
All others	28
Total patients treated during 1915	610

Personnel on duty at hospital.—The mean daily strength of the personnel on duty during the year was as follows:

Medical officers	10.96
Post noncommissioned staff	1.00
Hospital Corps and Quartermaster Corps	123.38
Army Nurse Corps	24.33
Mean aggregate	159.67

The character of the personnel received at this post (28 recruits) was not satisfactory. Facilities for drill and instruction as Hospital Corps men are lacking, and the multiform duties require men of service and above the average.

GENERAL HOSPITAL, FORT BAYARD, N. MEX.

The general hospital at Fort Bayard is devoted to the treatment of pulmonary tuberculosis in soldiers and in beneficiaries of the soldiers' home.

Fort Bayard is situated in Grant County, N. Mex., in the extreme southwestern part of the State. On account of the southern location of the hospital, it is generally assumed by those unfamiliar with the local conditions that the climate is very warm. But the altitude, 6,165 feet, largely counterbalances the influence of the southern sun and renders the climate cool rather than warm. The usual vicissitudes of the seasons are experienced. In the winter there is occasional snow; frosts occur nearly every night, rarely there is severe cold approaching the temperature of zero Fahrenheit, but such cold is of brief duration. On the whole, the winters are relatively warm, dry, and clear. In summer the heat is tempered by the dryness of the air, with the resulting diathermancy. The fact that summer is the time of the chief precipitation also exercises an important effect upon the temperature, clouds and rain very frequently being present during what would otherwise be the hottest portion of the days. These factors result in producing singularly cool weather, the summer being far more comfortable for the human organism, whatever the thermometer readings, than that of the greater part of the Northern States of the East and of the Mississippi Valley. For the treatment of tuberculosis, the peculiar excellence of the climate of Fort Bayard consists in the fact that it is one that avoids harmful extremes of temperature, yet in its diurnal and annual variations affords a sufficient stimulus to the human organism to favor activity of the metabolic processes.

An additional ward for ambulent patients is under construction. This building consists of a central structure containing offices and storerooms, with two wings used as wards. The material used is cement brick pebble dashed, with tile roof. The capacity of the building is 40 patients.

The number admitted during the year, including beneficiaries of the soldiers home, civilians, and general prisoners was 738, being an increase of 7 over the preceding year. The average number of days in hospital for each case was as follows:

	Officers.	Cadets.	Enlisted men.	Beneficiaries of the soldiers, home.	General prisoners.	Civilians.	
						Male.	Female.
Medical	125.79	281.67	109.56	134.26	57	103.41	57.1
Surgical			20.69			18.00	16.8
Venereal			23.75				
Mental			(1)				

(1) One tuberculous case later developed insanity and is counted among the medical.

The following table shows the movement of the sick, togethe with the principal sources of admission during the calendar yea 1915, civilians and general prisoners being included:

	Officers and enlisted men.	General prisoners.	Civilians.	Beneficiaries of the soldiers, home.	Total.
Admissions:					
Command	118	....	33	....	151
Transfer	251	....	....	....	251
Otherwise	5	....	58	273	336
Remaining, 1914	117	3	21	184	325
Total	491	3	112	457	1,063
Dispositions:					
Duty	178	....	25	....	203
Died	15	....	12	26	53
Discharged for disability	103	....	....	....	103
Deserted	1	....	....	....	1
Discharged expiration term	6	....	....	....	6
Transferred to Government Hospital for Insane	1	....	....	....	1
Transferred to Hot Springs, Ark	3	....	....	....	3
Transferred to other hospitals	....	....	....	....	....
Otherwise disposed of	12	3	48	267	330
Remaining, 1915	172	....	27	164	363
Total	491	3	112	457	1,063

There were 53 deaths. Of this number 11 were of enlisted men, 1 of a retired soldier, 11 of civilians, and 26 of beneficiaries of the soldiers' home. The causes of death were:

Tuberculosis	46	Sarcoma of the lung	1
Septic endocarditis	2	Shock following operation for empyema	1
Dilatation of the heart	1	Fracture of skull	1
Chronic ulcerative colitis	1		

There were 103 discharged on certificate of disability. Of this number, one was not in line of duty, and 102 in line of duty. The causes were as follows:

	In line of duty.	Not in line of duty.
Tuberculosis, pulmonary	100	1
Pleurisy	1	....
Empyema, nontuberculous	1	....
	102	1

One enlisted man was transferred to the Government Hospital for the Insane.

The following is a condensed tabular statement of the surgical operations performed:

	Officers.	Enlisted men.	Total.	Retired enlisted men.	Army Nurse Corps.	Civilians.	Total.	Grand total.
Cranium	....	2	2	....	....	....	....	2
Nose	2	7	9	....	2	32	34	43
Ear	....	3	3	....	1	2	3	6
Throat	....	12	12	....	1	33	34	46
Thorax	....	....	....	2	....	1	3	3
Abdomen (laparotomy)	....	1	1	....	....	10	10	11
Gynecological, external	....	....	....	....	....	2	2	2
Gynecological, internal	....	....	....	....	....	2	2	2
Lower extremities	....	2	2	....	....	1	1	3
Major (not included)	....	1	1	....	....	....	....	1
Minor (not included)	....	3	3	....	....	4	4	7
Genito-urinary	....	....	....	....	....	2	2	2
Anus and rectum	....	2	2	....	....	2	2	4
Total	2	33	35	2	4	91	97	132

The following is a statement of the work done in the laboratory during the year:

Examinations of:		Examinations of—Continued.	
Urine	1, 025	Urethral discharges	4
Blood	251	Miscellaneous	5, 257
Sputum	10, 159		
Feces	67	Total	16, 766
Stomach contents	3		

The number of completed cases of pulmonary tuberculosis in 1915 was 446. Important complications were present as follows:

Tuberculous laryngitis	60	Nephritis	
Otitis media	40	Tuberculous epididymitis	
Syphilis	48	Tuberculous peritonitis	
Valvular heart disease	2	Pneumothorax	
Fistula in ano	9	Pyopneumothorax	
Tuberculous enteritis	7	Tuberculous hydrothorax	
Tuberculous spondylitis	5	Tuberculous cystitis	

Aortic aneurism, tuberculous prostatitis, and septic endocarditis, 1 of each.

The result of treatment in completed cases [1] of pulmonary tuberculosis was as follows:

Class.		Apparently cured.		Arrested.		Apparently arrested.		Quiescent.		Improved.		Unimproved.		Died.	
	Number.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Incipient	54	3	5.55	13	24.00	23	42.59	3	5.55	9	16.66	3	5.55	....	....
Moderately advanced	175	9	5.14	11	6.28	14	8.00	18	10.28	84	48.00	33	18.85	6	3.
Far advanced	216	....	......	1	.46	....	......	4	1.85	81	37.50	87	40.25	43	19.
Acute miliary	1	....	......	....	......	....	......	....	......	....	......	....	......	1	100.
Total	446	12	2.69	25	5.60	37	8.29	25	5.60	174	39.01	123	27.57	50	11.

The following table shows the result of treatment in all cases pulmonary tuberculosis:

Class.		Apparently cured.		Arrested.		Apparently arrested.		Quiescent.		Improved.		Unimproved.		Died.	
	Number.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Incipient	82	9	10.97	16	19.51	26	31.70	11	13.41	17	20.73	3	3.65	....	...
Moderately advanced	356	17	4.77	20	5.61	27	7.58	31	8.70	196	55.05	59	16.57	6	1.
Far advanced	361	....	......	2	.55	5	1.38	4	1.10	167	46.26	140	38.78	43	11.
Acute miliary	1	....	......	....	......	....	......	....	......	....	......	....	......	1	100
Total	[2] 800	26	3.12	38	4.75	58	7.25	46	5.75	380	47.50	202	25.25	50	6

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[1] By "completed cases" are meant all cases which have terminated their connection with the hospi in any way.

[2] Includes 75 cases under treatment less than 1 month.

The mean daily strength of the personnel on duty during the year was as follows:

Medical officers	11.79
Other officers	1.46
Post noncommissioned staff	1.89
Hospital Corps and Quartermaster Corps	148.35
Army Nurse Corps	22.31

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

This hospital was originally intended especially for patients having diseases in which hydrotherapeutic treatment is indicated. Paragraph 1441, Army Regulations, 1913, states that—

> The Army and Navy General Hospital, Hot Springs, Ark., is under the direction f the Secretary of War and is devoted to the treatment of the officers and enlisted men of the military and naval service of the United States, cadets at the United States Military Academy, officers of the Revenue-Cutter (now Coast Guard) Service, officers f the Public Health Service, and honorably discharged soldiers and sailors of the Regular and Volunteer Army and Navy of the United States, for such diseases as the waters of the hot springs of Arkansas have an established reputation in benefiting.

This hospital has served in part as a general hospital for the Southern Department and for the Second Division.

An addition to the bathhouse has been completed to accomodate fficer patients, being fitted with up-to-date therapeutic equipment, he flooring constructed of tile and the wainscoting and partitions of marble.

The Hospital Corps barracks, which was completed during November, 1915, is designed to accomodate 60 men and contains reading oom, barber shop and post exchange in the basement.

The double set of noncommissioned officers' quarters has been ompleted.

An addition to ward building Nos. 3 and 4 has been built, thus ncreasing the bed capacity of the hospital by 50 beds. It is purposed o use a section of this addition for convalescent officer patients, hereby increasing the facilities for caring for this class of patients y 10 beds.

A diet kitchen has been added to Ward No. 1, so as to facilitate the erving of this ward, in which are treated the most serious cases dmitted to the hospital. This addition, 20 by 20 feet, has a tile oor and tile wainscoting, and is equipped with gas range, water eater, dish washer, food warmers, etc.

An operating suite has been completed which is connected with the dministration on one side, and with ward 2 on the other, so as to ake it accessible to both the officers' section and the surgical ward. his addition contains a modern operating room, tiled throughout, ith skylight, electric overhead light, and electric wall outlets for the se of special electrical instruments during operations. The sterizing room is equipped with a new combination sterilizer outfit, three odern lavatories for hand sterilization and new instruments and ressing cabinets. In addition there is an etherizing room and a urgeon's dressing room.

Among other improvements made during the year may be mentioned the laying of tile floors in the toilet rooms of wards 1 and 2, eplacing with Vermont marble the old slate partitions to stalls and rinals replaced with floor appliances; wooden floors in lavatories of wards 2 and 3 replaced with tile, tile wainscoted, and old lavatorie replaced by modern type, while each new building in connection wit the hospital has been connected with the post system of drainage fire mains, roads, walks, mineral water, steam heat, sewers, electri lights, and in the case of the operating room and noncommissione officers' quarters with gas and city water, to complete which considerable construction work was required.

The total number of admissions during the year was 860, an increas of 75 over the preceding year. Of this number 58 were officers, 16 enlisted men, 9 retired officers, 43 retired enlisted men, and 581 civilians, including honorably discharged soldiers and sailors of the Army Navy, and Marine Corps. The daily average number of patient treated in hospital was 102.25.

The following tables show the principal causes of admission an method of disposition of all cases:

Remaining in hospital Dec. 31, 1914		11
Admissions:		
Alcoholism	3	
Disease of the respiratory system	4	
Disease of the heart	24	
Disease of the urinary system	6	
Dysentery	5	
Eczema	9	
Myalgia	16	
Rheumatism, articular	93	
Rheumatism, muscular	22	
Sprains and muscular strains	5	
Gastritis	14	
Hernia, inguinal	11	
Appendicitis	9	
Disease of the kidneys	49	
Arthritis	57	
Syphilis and results	80	
Gonorrhea and results	24	
Carcinoma	8	
Disease of the circulatory system	134	
Malarial infection	12	
Pulmonary tuberculosis	4	
All other causes	271	
Total admissions		8
Total to be accounted for		9
Dispositions:		
Returned to duty		1
Died		
Discharged on surgeon's certificate of disability		
Transferred		
Discharged from hospital (civilians)		6
Otherwise disposed of		
Remaining in hospital Dec. 31, 1915		1
Total dispositions		9

DEATHS.

Eighteen deaths occurred during the year, including one officer nd one enlisted man on the active list of the Army (all others civilian atients), from the following causes:

rcinoma of upper right quadrant of abdomen, involving right kidney [1]	1
ost operative shock following gastro-enterostomy and appendectomy [2]	1
ncer of the stomach	1
ost operative shock following amputation of right thigh	1
remia	2
neumonia, catarrhal	1
pticemia	1
iabetes, mellitus	1
ephritis, parenchymatous	1
uberculosis of the lungs	1
rcinoma, gastric, pyloric	1
trophic cirrhosis and endocarditis	1
yphilis, tertiary (Gumma of the lungs)	1
obar pneumonia	1
ecrosis head of first metatarsal bone, following senile gangrene of great toe, right	1
roncho-pneumonia	1
rteriosclerosis	1
Total deaths	18

DISCHARGES FOR DISABILITY.

During the year 29 enlisted men were discharged on account of sability; the causes were distributed as follows:

phritis, interstitial, chronic	3
phritis, parenchymatous, chronic, and adhesions to cecum, following appendectomy	1
phritis, parenchymatous, chronic	1
thritis, infectious, multiple, chronic	1
thritis, chronic, right knee	1
thritis, gonorrheal, chronic, metatarso-phalangeal joints, both feet	1
thritis, chronic, affecting lumbar vertebræ	1
thritis, chronic, left sacro-iliac joint	1
uritis, subacute, involving right brachial plexus	1
uritis, traumatic, right ulnar nerve	1
uritis, chronic, right radius	1
uritis, chronic, traumatic, left external popliteal nerve, with motor paralysis	1
uritis, traumatic, right knee	1
lyarthritis, chronic, both knees, both ankles, and both wrists, caused by septic infection from wound on web of right thumb	1
at feet	1
rcoma of right kidney	1
philis, intractable	1
ostosis, planter surface of os calcis, bilateral	1
ralysis, partial, left lower limb, following anterior polyomyelitis	1
ralysis of circumflex of right brachial plexus, post syphilitic, with resultant loss of motion in right shoulder	1
ychasthenia, with tendency to self-depreciation and introspection	1
eumatism, articular, chronic, general, and endocarditis, rheumatic, chronic	1
eumatism, chronic, gonorrheal	1
tral stenosis, post rheumatic	1
stritis, chronic, catarrhal, and neuritis left brachial plexus	1
novitis, chronic, right knee	1
ibetes, mellitus	1
Total discharges for disability	29

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[1] Enlisted man on the active list of the Army.

[2] Officer on the active list of the Army.

SURGICAL OPERATIONS.

Following is a résumé of the surgical work done during the past 1 months:

Name of operation.	Disease or injury.	Number of cases.	Successful.	Died.	Anesthetic.	
					Ether.	Local.
	EYE.					
Transplantations	Pterygium	15	15			1
Extraction	Cataract, senile	7	7			
Iridectomy	Glaucoma	1	1			
	NOSE.					
Curettment and drainage	Occlusion left frontal sinus	1	1		1	
Submucous resection	Deflected nasal septum	7	7		7	
	MOUTH AND PHARYNX.					
Tonsillectomy	Hypertrophied tonsils	18	18			
	ABDOMEN.					
Appendectomy	Appendicitis	14	14		14	
Excision	Adhesions between stomach and gall bladder.	1	1		1	
Cholecystectomy	Cholecystitis	2	2		2	
Gastroenterostomy	Ulcers, multiple, pyloric end of stomach.	1	1		1	
Do	Pyloric ulcers	3	3		3	
Do	Carcinoma of stomach	1	1		1	
Chloecystenterostomy	Sinus following cholecystostomy.	1	1		1	
Partial gastrectomy (Mayo opreation).	Carcinoma of stomach	1	1		1	
Ferguson's modified	Inguinal hernia	5	5		5	
Gastroenterostomy and appendectomy.	Ulcers of stomach, pyloric, and hepatic cirrhosis; appendicitis.	2	1	1	2	
Exploratory laparotomy	Sarcoma involving right kidney.	1	1		1	
Andrew's radical cure	Ventral hernia	1	1			
Excision	Necrotic area of liver	1	1		1	
Cholelithotomy with removal of stone from common duct.	Biliary fistula	1	1		1	
	ANUS AND RECTUM.					
Excision of hemorrhoids	Hemorrhoids, external	3	3		3	
Excision	Fistula in ano	2	2		2	
	GENITO URINARY.					
Prostatectomy suprapubic	Prostatic hypertrophy	6	6		6	
Cystotomy	Septic cystitis	5	5		5	
Excision	Hydrocele of spermatic cord	1	1		1	
Cystotomy suprapubic	Vesical calculus	1	1			
Do	Prostatic hypertrophy	2	2			
Do	Carcinoma of bladder	1	1		1	
Drainage of seminal vesicles	Vesiculitis	1	1		1	
Orchidectomy	Neuralgia, right testicle	1	1		1	
Excision of sac	Hydrocele right tunica vaginalis.	1	1		1	
Incision and iodoform injection	Adenitis, inguinal	6	6		5	
	SKIN AND CELLULAR TISSUES.					
Subcutaneous excision	Varicose veins	1	1		1	
Excision	Pigmental mould of neck	1	1		1	
Do	Epithelioma of lower lip	1	1		1	
Do	Fibroma over sternum	1	1			
Incision and removal	Foreign body in wrist	1	1			
Do	Bullet fragment in leg	1	1			
Do	Sebaceous cyst left side of neck.	1	1			
Do	Subtendo achilles bursa, left	1	1		1	
Do	Exostosis os calcis	4	4		4	

Name of operation.	Disease or injury.	Number of cases.	Successful.	Died.	Anesthetic.	
					Ether.	Local.
	BONES.					
iring of greater tuberosity to humerus.	Fracture upper end of humerus	1	1	......	1	....
horocoplasty and partial decortication.	Sinus opening lateral chest wall.	1	1	......	1	....
xcision	Displaced bone fragment from tibialis anticus, following gun-shot fracture.	1	1	......	....	1
rthroplasty....................	Complete ankylosis right knee	1	1	......	1	....
esection of base of each phalanx any and enlarged area of head of first metatarsal bone.	Halux valgus metatarso-phalangeal joint (first), both feet. Osteoarthritis of metatarsophalangeal joint of second, third, fourth, and fifth joint, both feet.	1	1	......	1	....
	AMPUTATIONS.					
mputation of thigh at middle third.	Senile gangrene..............	1	1	......	1	....
mputation of thigh at lower third.	Diabetic gangrene............	1	1	......	1	....

LABORATORY.

Following is an abstract of the laboratory work done during the ear 1915:

assermanns	520
acteriological examinations	7
eces	55
lood examinations	71
ilk examinations (fat and bacteriological determination)	31
uta	34
henolsulphonephthalein tests for renal efficiency	11
rine	1,391
issues, sectional	1
etin tests	115
rethral smears	10
ccines	7
inal fluid examinations	9
Total	2,262

PERSONNEL ON DUTY AT HOSPITAL.

The mean daily strength of the personnel on duty during the year as as follows:

dical officers	5.78
her officers (dental surgeon)	.03
st noncommissioned staff	1.00
spital Corps and Quartermaster Corps	71.80
my Nurse Corps	7.32
Mean aggregate	85.93

DEPARTMENT HOSPITAL, MANILA, P. I.

This hospital is the general hospital for the Philippine Department. differs from the general hospitals in the United States in that it not directly under the control of the Surgeon General, but owing its geographic location it is under the authority of the department mmander.

The addition over the officers' ward, to serve as an accommodation for women and children, has been completed, and occupancy took place July 30, 1915. This addition consists of one large ward divided into 10 rooms, is screened and well ventilated on all sides, and has direct communication with the operating room by an electric elevator. Bathrooms adjoin the ward.

An item for painting the outside of all buildings, except recent new construction, was included in the annual estimates for the fiscal year 1916, and the work is now being done. The material for screening the venereal ward has been furnished and the work commenced.

A cement water tower with a 10,000-gallon tank is in course of erection on the eastern part of the hospital grounds to furnish artesian water for use of the hospital from a well 760 feet deep, which it is expected will furnish 25 gallons of water a minute. Upon the completion of this tower the distilling plant will be discontinued.

An alteration much needed at the hospital is another room in the administration building for use as a library and reading room fo medical officers. Such a room might be provided by cutting the commanding officer's and the adjutant's offices in two by a partition or preferably by putting a second story on the whole administratio building. This item will be taken up on the annual estimate.

During the year 1915 2,510 cases were admitted to hospital, o which number 82 were officers, 1,750 American enlisted men, 8 Philippine Scouts, and 591 civilians. Of the entire number 1,61 were medical, 899 surgical cases. The total daily average numbe of patients in hospital was 96.25. Of this number 4.10 were officer, 70.89 American enlisted men, 6.10 Philippine Scouts, and 15.1 civilians.

The following table shows the movement of the sick, together wit the principal causes of admissions, during the year 1915:

	Officers.	Enlisted men (American).	Philippine Scouts.	Civilian
Admissions:				
For gunshot wounds	....	2	....	....
Diarrhea and dysentery	3	10	....	-
Malarial fevers	6	17	8	
Typhoid fever	....	....	....	
Rheumatic affections	....	24	1	
Venereal diseases	3	234	6	
Injuries	6	134	9	
Insanity	1	57	6	
Alcoholism	....	49	....	
All other causes	63	1,223	57	4
Total	82	1,750	87	5
Dispositions:				
Returned to duty	76	1,292	46	
Discharged on certificate of disability	....	1	33	....
Discharged per expiration of term of service	....	2	1	....
Discharged per general court-martial	....	1	....	....
Deaths (all causes)	....	3	2	
Transferred to other hospitals	11	465	1	
Otherwise disposed of	....	....	....	
Total	87	1,764	83	

Total admissions during the year	2,
Remaining on sick report Dec. 31, 1914	
Total to be accounted for	2,
Total dispositions during the year	2,
Remaining on sick report Dec. 31, 1915	
Total accounted for	2,

The following tabulation shows the deaths, with causes, for the year 1915:

Cause.	Enlisted men (American).	Philippine Scouts.	Civilians.
Asphyxia during labor, due to inspiration of amniotic fluid			1
Broncho-pneumonia, acute			2
Cardiac dilatation			1
Ether anesthesia and operative shock			1
Exhaustion and hemorrhage from gums, due to spleno-myelogenous leukemia		1	
Gastroenteritis, acute, catarrhal			1
Hemorrhage from bowel, due to typhoid fever			1
Impetigo contagiosum			1
Obstruction of duodenum by constriction from ulcer		1	
Oedema of the brain, alcoholic			1
Premature birth			1
Rupture of saccular aneurysm of ascending arch of aorta	1		
Septicemia following acute suppurative ethmoiditis and empyemia of antrum of Highmore	1		
Shock and internal hemorrhage (abdominal) following traumatic injury			1
Toxæmia and exhaustion following pyemia	1		
Toxæmia following carcinoma of liver			1
Total	3	2	12
Aggregate			17

American soldiers are not discharged for disability in the Philippine Islands except in very rare cases; there was one discharge there n 1915. All the native enlisted men physically disabled for service are discharged in the islands. The following table shows the number discharged, with causes therefor:

	American troops.	Philippine Scouts.
Per expiration of term of service	2	1
ertificate of disability	1	33
Per general court-martial	1	
Total	4	34

Causes of disability.

Aneurysm, saccular, transverse portion of arch of aorta	1
Ankylosis, right knee joint, sequel to gonorrheal arthritis	1
Bronchial asthma and pulmonary emphysema	1
Cataract, cortical, immature, right eye	1
Defective mental development	4
Dementia precox	4
Keratitis, chronic, affecting upper half of right cornea	1
Lateral curvature of spine, congenital	1
eprosy	1
euritis, multiple, chronic, involving upper and lower extremities	1
Tuberculosis, pulmonary, chronic	16
Tuberculosis, pulmonary, chronic, and tuberculosis of pleura	2
Total	34

In 1914 there were 41 discharged for disability at this hospital.

An active surgical clinic is maintained at this hospital. The following is a condensed tabular statement of surgical operations during the year 1915:

Operations.	Officers and enlisted men (American).	Philippine Scouts.	Total.	Civilians.	Grand total.
Cranium				1	1
Eye	18	4	22	11	33
Ear	14		14	4	18
Nose	28	1	29	3	32
Mouth and pharynx	30		30	30	60
Neck and thorax				1	1
Upper extremity	5		5	4	9
Abdomen (laporotomy)	65	1	66	38	104
Rectum and anus	21		21	9	30
Genito-urinary system	18		18	4	22
Vascular system	3		3	4	7
Lymphatic glands	12		12	1	13
Lower extremity	6		6	4	10
Tumors	4		4	4	8
Gynecological:					
External				76	76
Internal				46	46
Total	224	6	230	240	470

Operations of eye and ear clinic are shown above to complete the table, although it is a separate service. There were 50 deliveries at term in the obstetrical ward with 4 stillbirths and 1 maternal death.

The following is a report of the hospital laboratory work done during the year:

Examinations of—	
Blood	4,969
Urine	3,871
Sputum	2,040
Pathological sections	82
Animal injections	46
Wassermann reactions	4,535

Examinations of—	
Feces	2,823
Smears and cultures	1,885
Water examinations, bacteriological	504
Chemical, biological, and miscellaneous	312

The mean strength of the personnel on duty at this hospital for the year was as follows: Medical officers, 10; dental surgeons, 2 Army Nurse Corps, 23.89.

DEPARTMENT HOSPITAL, HONOLULU, HAWAII.

This is the general hospital for the Hawaiian Department. I serves as a post hospital for the garrisons in the vicinity of Honolulu and receives from Schofield Barracks cases of a serious nature and those requiring special treatment.

During the year the hospital has been more than doubled in size and capacity. Three two-story ward wings, an officers' ward and operatin building, and a barracks for the Hospital Corps detachment have bee completed and opened for use. Two additional buildings, a nurses home and a receiving and clinic building, are under course of construction. The bed capacity may now be considered as 300, whic in emergency can be expanded to 400 or more by the use of the porches The second floor administration building has been converted into a obstetrical and women's ward of 10 beds, with delivery and sterilizin rooms. Work is about to begin to convert one of the main ward into three separate detention wards, one for the care of psychopathic cases, one for prisoners with contagious diseases, and one for prisoners with diseases that are not contagious. An interior telephone system of 30 instruments has been installed. The gas supply has been extended to all wards and departments, and cooking, sterilizing and water heating are now done by gas. Large store rooms have been completed for the storage and issue of all classes of property. Carpenter, plumbing, and paint shops have been built. An enlargement of the kitchen has been made. A hydrotherapeutic clinic has been established. An enlargement of the dining room and a further enlargement of the kitchen will become necessary when the full bed capacity of the hospital is made use of. In the basement of the isolation building a disinfecting chamber and rooms for infected clothing are needed. Refrigerating facilities are inadequate. Plans for a refrigerating and cold storage plant are in preparation. There are no quarters for medical officers at the hospital and but one set of noncommissioned officers' quarters. The acquisition of land is necessary for this purpose and is dependent upon congressional action.

The work in all departments of the hospital has increased during the year, especially in the work of the X ray, the surgical and gynecological service, and the laboratory. During the year 2,283 cases were admitted to hospital, of which number 34 were officers; 4 Army Nurse Corps; 1,965 enlisted men; 268 civilians, and 12 general prisoners. Of these cases 1,126 were medical, 732 surgical, 389 venereal, and 36 mental.

The daily average number of patients in hospital for the year was 111.67.

The following table shows the movement of sick, together with the principal sources of admissions, and the disposition of all cases during the year:

	Officers and enlisted men.	General prisoners.	Civilians.	Total.
Admissions:				
From command	81			81
Transfer	1,845	10	4	1,859
Otherwise	75	2	266	343
Remaining, 1914	75		5	80
Total	2,076	12	275	2,363
Dispositions:				
Returned to duty	1,815	3		1,818
Died	12		8	20
Transferred to other hospitals	166	1		167
Otherwise disposed of	4	8	248	260
Remaining, 1915	79		19	98
Total	2,076	12	275	2,363

The principal causes of admission were as follows:

Gunshot wounds	8	Injuries	277
Diarrhea, gastroenteritis	66	Insanity	36
Malaria	8	Alcoholism	48
Typhoid	2	All others	1,402
Rheumatic affections	47		
Venereal	389	Total	2,283

There were 20 deaths. Of this number 12 were officers and enlisted men and 8 civilians. The following were the causes of deaths:

Typhoid fever	1	Eclampsia	1
Dysentery, bacillary (Hiss-Russell type)	1	Malignant tumor, sarcoma	2
Pneumonia	6	Embolism cerebral (metastatic)	1
Cerebro-spinal meningitis	1	Pulmonary oedema (apoplexy)	1
Heart disease, valvular	1	Cerebral compression (injuries)	3
		Gunshot wounds, head (suicide)	2

There were no discharges during the year.

The mean daily strength of the personnel on duty during the year was as follows:

Officers	9. 60	Hospital Corps	85. 32
Army Nurse Corps	11. 42	Mean aggregate	106. 34

PROVIDENCE HOSPITAL.

The act approved March 3, 1915, having appropriated $19,000 for support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon General of the Army, for relief afforded was as follows:

Patients in hospital July 1, 1915	95
Admitted during the year	1,369
Total number treated	1,464
Average number admitted per month	122
Number remaining in hospital June 30, 1916	85
Total number of days' treatment afforded	33,716
Average number of days' treatment per patient	2
Average number of patients treated per day	9
Longest term of treatment (days)	366
Shortest term of treatment (days)	
Number of patients in hospital during the whole year	

LABORATORIES.

A laboratory is provided for each of the departments, the one at the Army Medical School, Washington, D. C., for the use of the Eastern Department; at Fort Leavenworth, Kans., for the Central Department; at the Letterman General Hospital, Presidio of San Francisco, Cal., for the Western Department; at Fort Sam Houston, Tex., for the Southern Department; and at Honolulu, Hawaii, for the Hawaiian Department. The laboratory of the tropical board has become a department laboratory for the Philippine Department, and located at Manila, P. I.

ARMY MEDICAL SCHOOL.

BACTERIOLOGICAL DIVISION.

No changes of importance have been made in the bacteriological laboratories during the past year. The work has been of a varied character, as shown in the following summaries:

TYPHOID FEVER PROPHYLACTIC.

Vaccine prepared in the laboratory was distributed during the six months' periods as follows:

	June 30, 1915.	Dec 31, 1915.	June 30, 1916.
	C. c.	*C. c.*	*C. c.*
rmy	107,823	82,517	340,596
avy	48,528	50,374	84,585
ational Guard	11,709	15,713	33,466
arious Government departments	1,152	2,289	1,148
ivilians and civilian institutions	1,082	761	536
Total	170,294	151,654	460,331

No changes have been made in the preparation of the typhoid vaccine, since our results from that at present in use have been all that ould be desired.

iscellaneous vaccines prepared and distributed to Army posts during the six months' periods.

	June 30, 1915.	Dec 31, 1915.	June 30, 1916.
onococcus:	*C. c.*	*C. c.*	*C. c.*
Prepared	1,700	3,280	2,750
Distributed	1,906	2,457	1,719
aphylococcus:			
Prepared	280	325	422
Distributed	589	273	316
reptococcus:			
Prepared	575	300	435
Distributed	383	152	300
aphylococcus-acne:			
Prepared	383	875	300
Distributed	666	424	376
utogenous, prepared and distributed ... number	23	30	41
ile media was distributed to Army posts ... bottles		47	52

Summary of clinical laboratory examinations of typhoid fever cases.

	Six months' periods ending—		
	June 30, 1915.	Dec 31, 1915.	June 30, 1916.
Examination of typhoid cases	164	137	184
Convalescents examined:			
Positive	0	1	1
Negative	11	6	4
Suspected carriers or contacts examined:			
Positive	9	5	2
Negative	38	32	64
Widals:			
Positive	12	2	5
Negative	74	55	27
Blood cultures:			
Positive	2	4	1
Negative	22	28	29
Blood cultures from clots:			
Positive	0	0	0
Negative	4	5	2
Examination of feces for b. typhosus:			
Positive	0	0	0
Negative	24	14	60
Examination of urine for b. typhosus:			
Positive	0	0	0
Negative	12	23	5
Examination of feces for b. dysenteria:			
Positive	0	0	
Negative	[illegible]	5	

No chronic bacillus carriers were detected during the fiscal yea ending June 30, 1916.

As there are only a few cases of paratyphoid fever reported yearly it has not seemed necessary, at least in our service, to use a mixed typhoid and paratyphoid vaccine, and none has been used.

Summary of clinical laboratory examinations.

	Six months' period ending—		
	June 30, 1915.	Dec. 31, 1915.	June 30, 1916.
Blood counts:			
Red	92	74	
White	94	70	
Differential counts	98	70	
Malaria:			
Positive	1	0	
Negative	114	60	
Blood cultures:			
Positive	0	1	
Negative	4	3	
Urinalyses	88	112	
Sputa for tubercle bacilli:			
Positive	7	4	
Negative	72	34	
Feces for parasites, etc	36	16	
Water, bacteriological	45	57	
Cultures of pus, exudates, etc	96	56	
Animal inoculations for immune sera, etc	299	240	
Histological examinations of operative and post-mortem tissues	210	218	
Miscellaneous examinations, gonococcus, etc	174	102	1
Wassermann examinations	5,567	2,047	2,5
Positive	240	266	3
Negative	510	442	5
Reexaminations	968	978	9
Tests made on survey	3,849	361	7
Examinations for treponema pallidum:			
Dark field microscope—			
Positive	6	4	
Negative	28	8	

Summary of clinical laboratory examinations—Continued.

	Six months' period ending—		
	June 30, 1915.	Dec. 31, 1915.	June 30, 1916.
Examination for treponema pallidum—Continued.			
Staining—			
Positive	2	0	0
Negative	0	0	0
Examinations for trypanosomes	50	....	....
Treatments with salvarsan	13	12	11
Treatments by bacterial vaccines	88	142	106
Treatments with emetine	0	9	0
Luetin tests	18	1	0
Spinal fluid:			
Globulin	211	104	199
Lange's test	209	104	199
Cell count	195	104	195
Spinal puncture	1	0	0
Rabies	2	0	0
Milk	20	11	11
Gonococcus fixation tests	30	37	46

REPORT UPON WASSERMANN TESTS.

The Wassermann reaction has been performed continuously as a diagnostic test for syphilis. During the year ended June 30, 1916, the total number of Wassermann tests in the laboratory was 4,566, of which 1,936 were reexaminations; 1,080 made on Wassermann survey and 1,550 examinations of new cases. Of the latter, 762 were of syphilis or suspected syphilis, and 788 were from cases suffering with diseases other than syphilis. In addition there were 83 tests made for gonococcus fixation, 332 spinal fluids in three dilutions, and 358 titrations of sera previously reported double-plus.

The following table shows the actual results obtained in known syphilitics:

Stage of disease.	Number of cases.	Positive.	Negative.	Per cent positive.
Primary	116	70	46	60.34
Secondary	223	200	23	89.69
Tertiary	285	230	55	80.70
Latent	138	81	57	58.69
Total	762	581	181	76.25

CHEMICAL LABORATORY.

The following analyses and examinations were made:

Drugs	3	Woman's milk	1
Feces	12	Stomach contents	18
Intestinal contents	3	Water	77
Cow's milk	37	Urine	9

X RAY LABORATORY.

In this laboratory the work done in addition to instruction is represented by the following table:

X ray:	
Radiographs	7,121
Dental films	2,001
Photomicrographs	45
Photographic:	
Negatives	665
Prints	2,756
Photographic—Continued.	
Lantern slides	720
Moving-picture film developed ...feet	600
Kodachromes	70

Letterman General Hospital.

Capt. Henry J. Nichols, Medical Corps, has been in charge of the laboratories for chemical and pathological work the greater part of the year, having assumed charge January 15, 1915, when an independent laboratory service was inaugurated. Capt. C. G. Snow, a valuable assistant, was transferred to the laboratory at Fort Bayard April 14, 1915. Sergt. Kincaid, who had been in the laboratory for seven years, was on February 11, 1915, relieved by Sergt. Higgins, who was replaced on August 5 by Sergt. Augsburg. The present force consists of one sergeant and 6 privates first class, and privates.

An addition to the laboratory has been authorized at a cost of about $5,000 and has recently been occupied. This building, with some additional equipment, has made it possible to devote certain rooms to certain kinds of work, and it is believed that the increased efficiency thus gained will justify the expenditure. The old laboratory, consisting of two large rooms, was badly overcrowded. With the installation of gas, the laboratory will be thoroughly equipped for regular and special work.

The laboratories served as clinical laboratories for the hospital with its 3,195 admissions and as a department laboratory for the western department. The work covers parts of chemistry, bacteriology, parasitology, pathology, and serology and may be summarized as follows:

Urine examinations	4,288	Wassermann reactions	3,148
Sputum examinations for tubercle bacilli	1,554	Skin reactions	387
Blood examinations	638	Throat cultures for diphtheria	1,196
Examination of venereal sores and discharges	313	Examinations of feces for parasites and ova	414
Cultures, miscellaneous	103	Smears, miscellaneous	75
Vaccinations and injections	361	Vaccines made	60
Functional tests (urine)	13	Animal inoculations	103
Water examinations:		Typhoid examinations:	
Chemical	13	Blood	32
Bacteriological	85	Stool	10
Milk examinations:		Urine	6
Chemical	13	Agglutinations	13
Bacteriological	13	Stomach contents, routine	30
String tests and occult blood tests	26	Stomach contents, toxicological	2
Chemical examinations, flour, lemonade, candy, bread, tablet	5	Miscellaneous	20

Autopsies.—Under orders of the commanding officer, post-mortem examinations were made on all officers and enlisted men dying in the hospital, and permission was obtained for examination of most of other cases. Of the 73 deaths, 58, or about 80 per cent, have been followed by autopsies.

A parallel list of clinical and pathological diagnoses has been kept and the following lesions not clinically diagnosed have been found Glioma of brain, hemorrhagic pachymeningitis, softening of the brain (2), tubercular abscess of apex of lung (2), one with extension into spinal canal and producing a transverse myelitis by pressure empyema, pleural effusion (5), miliary tuberculosis, diaphragmatic hernia, pericarditis (5), atrophic cirrhosis of liver (2), gumma of pancreas, cancer of stomach, general peritonitis (5), appendicitis, cancer of prostate.

In general, about 75 per cent of clinical diagnoses were confirmed at autopsy.

Syphilis.—On October 5, 1915, a survey of most of the wards was made for the presence of syphilis, and of 215 patients, 47, or 21.9 per cent, were found to have syphilis; 12 per cent were in hospital for recognized syphilitic lesions and in 5.5 per cent syphilis was coincident, while in 3.5 per cent it had not been diagnosed and was found by Wassermann reaction.

Capt. Snow had developed a delicate technique for the Wassermann reaction, using different amounts of serum and a carefully controlled hemolytic system of goat cells. This system was used until Capt. Snow left for Fort Bayard, and then in the interest of uniformity with the other service laboratories the method devised by Capt. Craig at the Army Medical School was adopted and has been satisfactory. The use of the cholesterinized antigen has proved to be superior to the ordinary antigen in known cases, such as in primary cases and in cases of aneurysm, tabes, and paresis, and false positives have not been proved to occur. Spinal fluid examination has proved of great value in the diagnosis and prognosis of syphilitic conditions. Routine examinations have been made of all mental cases and should be made in all cases of syphilis before treatment is suspended. Twenty examinations have been made in the primary and secondary stages. No instance of involvement of the nervous system has been found in 6 primary cases, 5 early secondary cases showed no abnormalities, 6 showed slight changes, and 3 definite changes.

Eighteen intraspinal injections of salvarsanized serum have been given in 9 cases. Two cases of tabes have shown definite improvement, but none was seen in cases of paresis. Mercurialized serum was injected 13 times in 4 cases. These injections had some effect on the spinal fluid findings, but apparently less than salvarsanized serum. The intraspinal method is believed to be a rational and effective local treatment of syphilis of the nervous system. In the military service its use is apt to be limited, because while many patients can be improved they can not be returned to full duty, and are therefore discharged for disability. In selected cases, however, its use is indicated.

Under War Department orders requiring a Wassermann reaction on all accepted recruits, 1,106 specimens have been sent to this laboratory from Fort McDowell since July 23. The results of examination are as follows:

	××	×	×−	−	Total.	××
						Per cent.
Recruits	44	16	28	643	731	6.0
Reenlisted men	53	5	19	298	375	14.1
Total	97	21	47	941	1,106	
Per cent	8.7	1.8	4.2	85.0		

It will be seen that in this set of examinations reenlisted men show more than twice as many cases of infections as recruits.

Capt. De Voe has checked up the (× ×) cases clinically and has found a history of initial lesion or other evidence of probable infection in about 50 per cent of the positive cases.

Typhoid group.—No case of typhoid fever has occurred during the year. One case of paratyphoid A was diagnosed by blood culture, in a soldier who had antityphoid vaccination two years before.

The typhoid case record for the hospital for the last five years is as follows: 1911, 19; 1912, 2; 1913, 1; 1914, none; 1915, none. These results are undoubtedly due to compulsory antityphoid vaccination. Some writers on the subject have claimed that the freedom of the Army from typhoid was only apparent and that mild and atypical cases occurred which were not recognized. With this criticism in mind, blood cultures have been made on all cases of continued fever and at autopsies the condition of the ileum and gall bladder has been carefully examined, but no cases have been detected. The conclusion is that typhoid fever has not been present in the 3,195 persons admitted.

The descriptive lists of all military patients have been examined for record of antityphoid vaccination and 25 have been found apparently incomplete. On further examination 11 have been found to be really incomplete, and in 5 cases the necessary injections were given; in the other cases the patients were discharged for disability.

Diphtheria.—Diphtheria occurs annually during the winter months in San Francisco and usually spreads to the nearby garrisons. In December a few cases occurred in Company G, Twenty-fourth Infantry, and scattering cases elsewhere in the Presidio. Company G was isolated and examined; 5 cases and 25 carriers were found, or 19 per cent of carriers. This figure has been maintained for the other contacts examined.

The Schick test has been made on 12 nurses, and 4 were found immune. One untested nurse in charge of diphtheria patients became infected. Thirty-seven medical officers and Hospital Corps men were tested and 17 found immune. A number of tests have been made on cases and contacts and carriers in children and adults and the same general results have been obtained as have been reported in the literature of this subject. From the military point of view the test seems to be of value in detecting those who are naturally immune before an epidemic appears. A list of immunes can be kept among doctors, nurses, and corps men, and details for care of patients can be made from this list. The drawbacks to the test are, the difficulty o securing good toxin at remote places, the poor keeping qualities o the toxin, the difficulty of reading partial reactions, and the necessity of observation for several days before a final reading is made. In the presence of an epidemic these are disturbing factors, but during intervals they could be obviated.

Amœbic dysentery.—This disease presents a distinct problem in treatment at this hospital because nearly 50 cases have been admitted and there is no concensus of opinion as to the best treatment. Emetine is of great value, clinically, but practically 100 per cent of case relapse under emetine alone. With the cooperation of the medica service, patients in one ward have been treated with emetine an ipecac by mouth, in another ward a series has been started on emetin and bismuth with quinine irrigations. None of the first set are fre from amœba, but several of the second series have been free for several months.

Two cases of bacillary dysentery were admitted from a transport. A dysentery bacillus was isolated from the stool, but has not yet been fully identified.

Amount of work and needs.—The work done exceeds that of the previous year by about 33 per cent. An analysis shows that over 80 per cent of the examinations gave negative results, and this emphasizes the large amount of work that must be done in a laboratory in order to arrive at the small percentage of positive results. Nearly all advances in clinical medicine have a laboratory element, and the demands on the laboratory are constant and increasing. This point is made in order to state that the number of men required for the proper laboratory work of this hospital will increase, and that if any amount of special work is to be done—and it should be done—another medical officer should be detailed.

At present, in equipment, the greatest need is gas, without which makeshifts will continue to be necessary.

In personnel there is a distinct need for men with some training in chemical and clinical laboratory work, and it seems that the Army Medical School might serve as a school for enlisted men as well as for officers along the line of the other service schools. At present the finding of trained men, or of men capable of training, is more or less a matter of chance.

Special work.—Ten specimens from autopsies have been sent to the Army Medical Museum and four specimens and cultures have been sent to the Army Medical School.

One lecture on syphilis was given at the Stanford Medical School, two papers on antityphoid vaccination and two on tropical medicine have been read at medical meetings. Three of these papers have been published.

Some work on gall-bladder infections in the rabbit with typhoid, paratyphoid, and dysentery bacilli, as bearing on the carrier problem, is under way, thanks to a special appropriation from the Surgeon General's Office, for animals.

Seventeen cases have been examined for the presence or cure of syphilis by the Wassermann provocative Wassermann, luetin and spinal fluid tests. All tests were negative in 7 cases and one or more tests were positive in 10 cases.

FORT SAM HOUSTON, TEX.

The department laboratory has served practically one-half of the mobile army during the whole period and complied with requests for almost 13,000 laboratory examinations and operations and filled 398 requisitions for supplies of various kinds.

A summary of these activities follows.

Miscellaneous vaccine prepared and distributed during the year 1915.

	Cubic centimeters.
Staphylococcus:	
Prepared	358
Distributed	288
Streptococcus:	
Prepared	319
Distributed	276
Staphylococcus-streptococcus:	
Prepared	261
Distributed	206
Staphylococcus - streptococcus - pyocyaneus:	
Prepared	105
Distributed	96
Staphylococcus-acne:	
Prepared	27
Distributed	18
Pyorrhea, mixed:	
Prepared	66
Distributed	54
Pyocyaneus:	
Prepared	120
Distributed	96
Pneumococcus:	
Prepared	54
Distributed	42
Paratyphoid A:	
Prepared	125
Distributed	36
Paratyhpoid B:	
Prepared	88
Distributed	12
Melitensis:	
Prepared	69
Distributed	60
Autogenous, miscellaneous	2, 248
Lots of vaccines prepared	49

VACCINES.

The great variety of infections usually met with in military practice have been extensively treated by suitable vaccines and the prompt and favorable results obtained fully justify the following conclusions:

The use of properly selected vaccines—

1. Markedly reduced the intensity and period of suffering on the part of the patient; and

2. Reduces to a minimum (*a*) time lost from duty, (*b*) period of hospital care and treatment, (*c*) the direct expenditure for medicines and dressings.

Summary of clinical laboratory examinations of typhoid and paratyphoid fever cases.

Cases examined for typhoid fever	36
Widals:	
Positive (2 soldiers and 1 civilian)	3
Negative	0
Blood cultures:	
Positive	[1] 4
Negative	25
Examination of feces for B. typhosus:	
Positive	3
Negative	13
Examination of urine for B. typhosus:	
Positive	1
Negative	11
Agglutinations for paratyphoid B:	
Positive	
Negative	
Examination of feces for B. dysenteria:	
Positive	
Negative	
Agglutinations for B. dysenteria:	
Positive	
Negative	

TYPHOID AND PARATYPHOID FEVERS.

Typhoid fever appeared for the first time since the concentratio of troops (amounting to 45 per cent of the mobile army of the Unite States) in the Southern Department, in the persons of two soldier belonging to organizations attached to small units. In one case n previous history was obtained but in the other the soldier passe most of his time in the home of a civilian living adjacent to the camp. A member of this family was ill and this laboratory found *B. typhosus* in specimens submitted from this patient prior to the receipt of specimens from the soldier. The etiological organism was isolated from blood cultures and feces in the three cases (one civilian), the urine in one case, and positive widals were obtained in the three cases.

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[1] Two cultures from one case.

A comparison of the incidence of typhoid fever in large, semipermanent camps similar to those of 1898 as made below confirms the fact that since the introduction of typhoid prophylaxis in the Army the typhoid rate in such camps has progressively diminished, a fact that is not affected by the two cases here reported, these having occurred in small, isolated and widely separated units.

	Cases of typhoid.		Deaths.	
	Certain.	Certain and probable.	Typhoid.	All causes.
898—Camp at Jacksonville, Fla. (troops, 10,759)	1,729	2,693	248	281
911—Camp at San Antonio, Tex. (troops, 12,801)	1			11
eb. 26, 1913, to Aug. 31, 1915—Camp at Texas City and Galveston, Tex. (troops, 11,500)				(1)

[1] No report.

B. paratyphosus B was isolated from the purulent exudate from he glands of a soldier suffering from a multiple lymph-adenitis, which was clinically diagnosed as Hodgkin's disease. The soldier gave no history of previous illness resembling typhoid fever, and the ondition for which he appeared on sick report was not one of the equelæ of such infection.

Clinical laboratory examinations of Mediterranean fever cases.

umber of cases examined for Mediterranean fever	34
Positive	17
Negative	17

MEDITERRANEAN (MALTA) FEVER.

The presence of Mediterranean fever in the Southern Department s worthy of serious attention. Out of 34 examinations made for his disease 50 per cent were found positive, 16 being cases of civilians onnected with the goat-raising industry, and the other one an Army fficer who gave a history of having eaten "barbecued" goat meat ut denied having used goat's milk in any form or having served in e vicinity of goat herds. One of the cases of civilians proved fatal.

Summary of clinical laboratory operations.

lood counts	761
Red	197
White	564
ifferential counts	325
emoglobin estimated	215
alaria	395
Positive	35
Negative	360

Urine analyses, total	2,178
Positive for albumen, no casts	335
Positive for casts, no albumen	412
Positive for casts and albumen	167
Negative for albumen and casts	1,264
Sputa for tubercle bacilli	685
Positive	73
Negative	612
Feces for parasites, etc	337
Water	19
Bacteriological	15
Chemical	4
Cultures from pus, exudates, etc	80
Animal inoculations	255
Histological examinations of operative and post-mortem tissues	107
Urethra smears for gonococci	315
Positive	140
Negative	175
Wassermann reactions	6,504
Blood serum—	
Positive	851
Negative	2,785
Reexaminations	2,714
Spinal fluid—	
Positive	14
Negative	12
Reexaminations	1
Examinations for treponema pallidum, dark field microscope	14
Positive	3
Negative	11
Luetin tests	2
Spinal fluid	13
For noguchi butyric acid test	5
Lange's colloid gold test	2
Pleocyte counts	5
Rabies	
Positive for negri bodies	
Negative for negri bodies	
Milk	9
Mother's milk	
Cow's milk	9
Diphtheria	9
Positive	2
Negative	7
Stomach contents	2
Malt beverages	1
Antigens prepared	1
Autogenous serum treatment for psoriasis	
Miscellaneous examinations	3
Autopsies performed	1
Slides added to cabinet	33

MILK EXAMINATION.

The method of making milk examinations that has been in use i this laboratory for the past three months has been found satisfac tory, and monthly submission of sample from the dairies supplyir Fort Sam Houston, Tex., Fort Bliss, Tex., and Camp Douglas, Ariz has been directed by the commanding general of the departmen

This method furnishes information as to (*a*) bacterial conten (*b*) leucocyte count, (*c*) presence of certain known disease-producin bacteria, (*d*) the presence of some preservatives, (*e*) the percentag of fat, and (*f*) the specific gravity and presence or absence of adde water.

These results can be determined from a sample of milk small enough to be easily shipped by mail after preparation by the post surgeons and furnish them with accurate data upon which report can be made as to the quality of the milk supply as required by A. R. 1387.

Supplies furnished to posts in the Southern Department, in addition to those furnished the base hospital, Fort Sam Houston, Tex.

Secured on requisition:		
Gonococcus vaccine	cubic centimeters	640
Typhoid prophylactic	do	5,040
Smallpox vaccine	units	10,390
Mailing tubes		1,280
Specimen bottles		98
Prepared in laboratory:		
Autogenous vaccines	cubic centimeters	578
Wright's capsules		6,182
Loeffler's blood serum	tubes	236
Agar agar, etc	do	96
Miscellaneous, stains, etc	requisitions	22
Bile media	bottles	86
lank requisitions supplied to avoid delay		30
otal number of requisitions filled during the year		398

The Wassermann reaction—Table of results in cases of known syphilis.

Blood serum.	Cases.	Positive.	Negative.	Per cent positive.
rimary	100	71	29	71.00
econdary	667	516	151	77.36
ertiary	212	155	57	73.11
atent	328	107	221	32.62
ereditary	2		2	
Total	1,309	849	360	64.86

Spinal fluid.	Cases.	Positive.	Negative.	Per cent positive.
rimary	8		8	
condary	11	1	10	9.1
ertiary	31	9	22	29.03
atent	18	4	14	22.22
ereditary				
Total	68	14	54	20.6

inal fluid reaction positive with positive serum	6
inal fluid reaction positive with negative serum	3
inal fluid reaction negative with positive serum	14

Miscellaneous information gained from Wassermann tests.

	Cases.	Positive.	Negative.	Per cent positive.
plicants for enlistment	123	13	110	10.5
plicants for United States Military Academy	5		5	

cluded from the above figures:	
False inhibitions	42
Cases of malaria	5

Comparative table of results of the Wassermann reaction with relation to treatment (cases of known syphilis).[1]

	Positive.		Negative: no record of treatment.		Negative; treated prior to test with record of previous positive reaction.		Negative; treated prior to test with no record of previous positive reaction.	
	Cases.	Per cent.	Cases.	Per cent.	Cases.	Per cent.	Cases.	Per cent.
Primary	71	71.00	17	17.00	5	5.00	7	7.00
Secondary	513	77.43	21	3.14	67	10.01	63	9.42
Tertiary	155	73.11	8	3.77	20	9.44	29	13.68
Latent	107	32.62	1	.31	144	43.90	76	23.17
Hereditary	....	....	2	100.00	....	....	....	....
Total	351	64.91	49	3.74	236	18.00	175	13.35

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[1] Classification made on clinical data accompanying requests for the tests.

Particular attention is paid to the Wassermann test, and it is believed that the results are satisfactory.

CLINOSTOMUM MARGINATUM.

Specimens of this fluke were found in fresh-water bass caught at Medina Dam in the vicinity of San Antonio, Tex.

This is mainly interesting because of its economic importance an the fact that hitherto it has not been reported as existing so far south the previously known distribution being from Kansas City and St Paul on the west to Montreal on the east, and St. Paul on the nort to Philadelphia on the south. This parasite is not known to be injurious to the human system, but does render the edible portion o food and game fishes unfit for consumption.

Honolulu, Hawaii.

The department laboratory, Hawaiian Department, was establishe in June, 1914. It is a part of the department hospital and takes car of all routine laboratory work of the hospital and Fort Shafter, a well as the more specialized work for other posts in the department The work is at present done in one small room in the administratio building. Examinations of urine and feces and the preparation o vaccines are carried on side by side, which constitutes a conditio far from ideal. These conditions must be tolerated pending th completion of the new clinic building, which will contain for th laboratory a large room extending entirely across one floor, with smaller room for the office and records.

The equipment added recently includes a large electric centrifug new incubator, and dark-field substage with arc lamp. The last ha proven invaluable for the quick, easy diagnosis of chancres an mucous patches. Additional equipment will be added when there a place to put it.

The personnel in charge of this work consisted of Capt. Frederic H. Foucar and two privates, which can not make for a further increas in the volume of work put out. It is contemplated, with addition quarters, to add a noncommissioned officer to the personnel, to ca for the records and handle a great deal of the routine work.

Summary of clinical laboratory examinations.

Urines	2,877	Blood cultures	20
Blood counts	619	Animal inoculations	9
Sputa	342	Dark-field examinations	85
Feces	389	Alcohol determinations	6
Urethral smears	347	Medico legal tests	0
Milk-fat estimations	57	Malaria hunts	71
Milk-bacteria estimations	40	Autogenous vaccines	96
Throat cultures	156	Autopsies	16
Throat smears	54	Tuberculin reactions	9
Stomach contents	163	Phenolphthalein	22
Bacterial examinations	200	Chemical tests	18
Wassermanns	2,967	Spinal fluid (butyric acid)	18
Water bacterial	67	Serum agglutinations	115
Chemical examinations, water	25		
Tissue sectioning	27	Total	8,815

The officer in charge furnishes the following as the most interesting data to be observed on looking over the above table:

Two outbreaks of diphtheria—June, 1914, and November and December, 1915.

An outbreak of dysentery (bacillary) occurred in September-October, 1915—about 40 cases among soldiers; 2 fatal cases (both children.) Organism isolated was of the Hiss-Russell type; a vaccine prepared, and 50 children of Fort Shafter were inoculated (3 doses); there were no additional cases among the children isolated.

A Wassermann survey was started on the Twenty-fifth Infantry at Schofield Barracks, but was discontinued after 500 specimens had been turned in; 8¼ per cent were double plus; it has been found very valuable to have record of these positive Wassermanns, for in several instances it has materially hastened arriving at a diagnosis in these men when subsequently admitted to the department hospital for treatment. It would be ideal if such a Wassermann record—containing, as it does, history of all venereal infection—could be had, kept up to date, from time to time for all men of the command.

The technique of the Wassermann is identical with that of the Army Medical School, with the exception that a liquid amboceptor is employed, for it is thought hat it keeps better in this climate, is quicker and more accurate in titrating. By means of the dark field, in the past 12 months 40 primary lesions have been diagnosed—many before onset of a positive Wassermann.

In routine examination of urine the frequency of a dietetic glycosuria is noted.

Examination of stools revealed numbers of cases of amoebic dysentery and hookworm—all these cases contracted in States, though these conditions do exist among he natives. The cases of malaria were all in men newly arrived from the States and iving definite history of previous attacks.

An outbreak of typhoid fever at Schofield Barracks starting in November, 1915—irst case that of a Japanese servant—four cases (with positive blood cultures) among oldiers; several other cases occurring among servants and children.

Two sharp outbreaks of food poisoning, both involving almost an entire company. First at Schofield Barracks, and due to absorption of toxins produced in meat by the B. *paratyphoid* B; abrupt onset, short course and lack of agglutination on part of atients ruling out diagnosis of paratyphoid fever. Second, a company at Shafter, ue to eating a mess containing poisonous fish.

MEDICAL DEPARTMENT.

The following statement shows the strength of the personnel commissioned, enlisted, and employed by contract or otherwise, of the Medical Department on June 30, 1916:

Medical officers	443
Medical reserve officers, active duty	146
Contract surgeons	17
Dental surgeons, commissioned	40
Acting dental surgeons, under contract	35
Army Nurse Corps	150
Medical Department enlisted personnel	4,670
Civil employees	291
Total medical personnel	5,792

MEDICAL CORPS.

The Medical Corps is composed of the commissioned medical officers of the Regular Army:

Authorized strength June 30, 1916	444
In service June 30, 1915	433
Appointed during the year	14
Total	447
Losses during the year	4
In service June 30, 1916	443

On October 1, 1915, 20 candidates who had passed the preliminary examination for appointment in the Medical Corps reported a Washington to take the course of instruction at the Army Medica School. Seventeen successfully completed the course of instructio at the school and were graduated June 1, 1916. Fourteen graduate were recommended for appointment in the Medical Corps of th Army.

Losses during the fiscal year.

	Colonel.	Captain.	First lieutenant.	Total.
Died	1	1		
Retired	1			
Resigned			1	
Aggregate	2	1	1	

The following promotions were made: 2 lieutenant colonels to b colonels; 2 majors to be lieutenant colonels; 2 captains to be major 22 lieutenants to be captains.

The department held two preliminary examinations for appoin ment in the corps, the first on July 12, 1915, and the second o January 10, 1916, at various Army posts throughout the countr Nineteen applicants passed the preliminary examinations. Of th number 12 attended the session of the Army Medical School, whic ended June 1, 1916, leaving 7 who will attend the next session of the school. Preliminary examinations will be held on July 17, 1916, August 14, 1916, and September 5, 1916, at various Army posts throughout the United States, Panama, and Porto Rico, to which over 200 candidates have been invited.

MEDICAL RESERVE CORPS.

On roster June 30, 1915		1,426
Appointed during the year		542
		1,968
Losses during the year:		
Resigned	34	
Discharged	6	
Died	11	
Commissions vacated by appointment to regular corps	14	
		65
On roster June 30, 1916		1,903

Of the 1,903 on roster June 30, 1916, 146 were on active duty and 1,757 on the inactive list.

On active list June 30, 1915		86
Ordered to active duty during the year		136
		222
Relieved from active duty	62	
Commissions vacated	14	
		76
On active duty June 30, 1916		146

An officer of the Medical Reserve Corps residing in the vicinity of each military post has been designated as a locum tenens, and the policy has been adopted of calling such officer into actual service for duty at his post when all the regular medical officers thereat are called upon to accompany troops into the field.

CONTRACT SURGEONS.

n service June 30, 1915	14
ontracts made during the year	11
Total	25
ontracts annulled during the year	8
Contracts in force June 30, 1916	17

These contract surgeons are on duty at arsenals, remount depots, transports, etc., at the rate of pay ranging from $75 to $150 per month.

DENTAL CORPS.

ental surgeons:		
Number of dental surgeons in service June 30, 1915	34	
Appointed during the year	7	
	41	
Resigned during the year	1	
On duty June 30, 1916		40
cting dental surgeons:		
Number of acting dental surgeons in service June 30, 1915	35	
Appointed during the year	15	
	50	

Acting dental surgeons—Continued.		
Contracts annulled	8	
	42	
Contracts annulled by acceptance of commission as first lieutenant, dental surgeon	7	
On duty June 30, 1916		35
Total		75

One examination of applicants for appointment as acting dental surgeon, United States Army, was held during the year, on October 18, 1915. At this examination 10 were successful; the 10, with 5 who had passed a previous examination, were given contracts.

Under the act of March 3, 1911, acting dental surgeons who have served three years in a satisfactory manner become eligible for appointment as dental surgeons and after passing the prescribed examination are eligible for commission in the Dental Corps with the rank of first lieutenant, provided the total number of dental surgeons of that rank did not exceed 60.

During the year 10 acting dental surgeons, having served 3 years, became eligible for such promotion; of these, 7 passed the required examination and have been promoted.

ENLISTED FORCE OF THE MEDICAL DEPARTMENT.

Strength at date of last report, June 30, 1915:	
Sergeants first class	29
Sergeants	40
Corporals	4
Acting cooks	18
Privates first class and privates	3, 05
Total	3, 99
Gain, July 1, 1915, to June 30, 1916:	
By enlistment	58
By transfer from line, including unassigned recruits from depots	1, 41
By return from desertion	15
General prisoners restored to duty	
Total	2, 16
Loss during same period:	
By discharge—	
Expiration of term of service	27
By order	39
Certificate of disability	4
Sentence general court-martial	1
Transfer to reserve	2
Transfer to line	1
By retirement	
By death—	
Due to disease	
Drowned	
Suicide	
By desertion	2
Dropped	
Total	1, 4
Leaving in service June 30, 1916:	
Sergeants first class	3
Sergeants	5
Corporals	
Cooks	1
Privates first class and privates	3, 5
Total	4, 6

The enlisted personnel of the Medical Department was also reorganized. The designation Hospital Corps was changed to Medical Department (enlisted force). Two new grades above sergeant, first class, were established: Master hospital sergeant, with pay of $75 per month, and hospital sergeant, with pay of $65 per month. The pay of sergeants was made to compare to that of the similar grade in other staff corps, $36 per month.

The percentage basis was adopted for the Medical Department, 5 per cent of the enlisted strength of the Army being allowed; in time of actual or threatened hostilities the Secretary of War is authorized to cause to be enlisted such additional number of men as the needs of the service may require.

Following are the grades as now established: Master hospital sergeants, hospital sergeants, sergeants first class, sergeants, corporals, cooks, horseshoers, saddlers, farriers, mechanics, privates first class, privates.

Ratio of privates first class to privates is now the same as in the Quartermaster Corps.

Ratings for additional pay for privates first class were established as follows: Dispensary assistant, $2 a month; nurse, $3 a month; surgical assistant, $5 a month.

ARMY NURSE CORPS.

The authorized strength for the Army Nurse Corps for the fiscal year ending June 30, 1916, has been 150, which, however, has been far from sufficient to supply the demand for nurses. Two nurses from the eligible list have been employed under contract since April 28, at the Walter Reed General Hospital, Takoma Park, D. C., owing to the increased work at this station. The appointment of 12 additional nurses was authorized on June 9 by the Secretary of War, and in consequence 12 nurses were assigned to duty at the base hospital, Fort Bliss, Tex. Eight more have been ordered to the base hospital, Fort Sam Houston, Tex. Additional nurses will be sent to both these hospitals as soon as provision is made for an ncrease in the Nurse Corps. Four nurses who have been on duty at Fort Leavenworth have been transferred from there, on account of the transfer of the troops to the Mexican border.

New quarters for nurses have been furnished and are occupied at the department hospital, Honolulu, and the quarters at Letterman General Hospital will be ready for occupancy in August. Plans are being drawn also for nurses' quarters at Fort Sam Houston, the nurses in the meantime occupying rented quarters at the post as a emporary arrangement.

Seven hundred and fifty requests for application blanks have been eceived during the year. During the same period there have been 34 discharges and 1 death; 40 appointments and 7 reappointments; otal, 47.

The appropriation bill for the coming fiscal year now before Congress provides for 56 additional nurses, but on account of the recent mobilization on the Texan border of the militia, in addition to the egular troops, a further increase will be required.

ARMY MEDICAL SCHOOL.

Col. William H. Arthur, Medical Corps, relieved Col. Charles Richard, Medical Corps, on September 30, 1915, as commandant of the school and professor of military surgery.

Maj. Eugene R. Whitmore, Medical Corps, assumed the duties of professor of military medicine and tropical medicine on August 4, 1915, relieving Lieut. Col. Champe C. McCulloch, jr., Medical Corps. In taking up this duty Maj. Whitmore did not relinquish his professorship in bacteriology, pathology, and laboratory diagnosis.

Capt. Ralph H. Goldthwaite, Medical Corps, relieved Capt. Edward M. Talbott, Medical Corps, as assistant professor of ophthalmology on November 3, 1915.

Capt. Paul L. Freeman, Medical Corps, reported on January 26, 1916, for a special course of instruction, relieving Capt. Thomas D. Woodson, Medical Corps.

The twentieth session of the school began on October 1, 1915, and ended May 20, 1916.

The number of accepted candidates appointed in the Medical Reserve Corps and ordered to the school was 20. Of this number, one failed to report, one resigned after reporting and before commencing the course, and one was later relieved from attendance by reason of physical disability.

Two members of the Medical Corps of the Organized Militia, one from the Georgia National Guard and one from the Pennsylvania National Guard, were admitted to the school. Both of these officers finished the course for medical officers of the Organized Militia and were found proficient. Certificates of proficiency were issued to them

The post-graduate course for officers of the Medical Corps was inaugurated and six officers (Capts. Charles L. Foster, Joseph F Siler, Craig R. Snyder, Lucius L. Hopwood, Lee R. Dunbar, and William S. Shields) were ordered to and reported at the school. This course was very successful and of great advantage to the officers taking it, though it was curtailed by the exigencies of the service.

Of the 17 student candidates under instruction at the school, 16 qualified at the final examination. Of this number 15 were recommended for commission in the Medical Corps, one failing to receive such recommendation because of deficiency in aptitude for the military service.

The following table exhibits the course of instruction, the names of the professors and assistant professors, the value given to each subject, and the hours of instruction:

No.	Subject.	Hours of instruction.	Professor.	Value.	
				Maximum.	Minimum.
1	Military surgery	26	Col. Wm. A. Arthur	800	640
2	Medical Department administration	26	Lieut. Col. J. D. Glennan	800	640
3	Military medicine and tropical medicine.	36½	Lieut. Col. C. C. McCulloch and Maj. E. R. Whitmore.	800	640
4	Ophthalmology	76½	Maj. T. C. Lyster, professor, and Capt. R. H. Goldthwaite, assistant professor.	400	320
5	Military hygiene	22	Maj. W. J. L. Lyster	800	640
6	Bacteriology, pathology, and laboratory diagnosis.	276	Maj. E. R. Whitmore, professor; Capt. Edw. B. Vedder and M. A. Reasoner, assistants.	900	720
7	Sanitary chemistry	159	Maj. R. B. Miller	600	400
8	Sanitary tactics	76	Capt. P. L. Jones	500	400
9	Operative surgery	8	Capt. Arthur C. Christie	400	320
10	Roentgenology	19	do	300	240

In addition to the above the following instruction was given: Series of lectures on psychiatry, general paralysis of the insane, mental defectives, psychosis occurring in mental defectives, dementia precox, hebephrenic type, paranoia; manic-depressive psychosis; psychoanalytical methods; hysteria and psycho-neuroses, by First Lieut. William A. White, M. R. C., superintendent of the Government Hospital for the Insane, special professor. In addition to these lectures there were clinical demonstrations by Capts. Thomas D. Woodson and Paul L. Freeman, Medical Corps, as follows: Dementia precox, general paralysis of the insane, manic-depressive psychosis, paranoid state, paranoid dementia precox, involutional melancholia, senile dementia, paresis, progressive muscular atrophy, paranoia, malingering in old dementia precox, juvenile paresis, and mental defectives. Twenty-four hours were devoted to the general subject.

Thirty hours instruction in equitation by First Lieuts. Sloan Doak and David H. Scott, Fifth United States Cavalry.

Twelve lectures on military law by Maj. Walter A. Bethel, Judge Advocate General's Department.

No special professors were designated during the 1915–16 session.

Two sergeants, Hospital Corps, were detailed at the school for nstruction in X-ray work and photography; they both proved to be apt, and acquired the technical knowledge and skill necessary to qualify them as instructors in these subjects, and were given certificates of proficiency.

The closing exercises were of an informal character. The diplomas were presented to the graduates by the Surgeon General of the Army with a few appropriate remarks. The two medals—the Hoff memorial medal and the Sternberg medal—which were awarded to First Lieuts. Edward A. Noyes and Paul A. Schule, respectively, were not presented during the exercises, there not being sufficient time between the final examinations and the date of graduation in which to have them properly engraved.

All the officers assigned to duty at the school have performed their various duties in a most satisfactory manner.

The enlisted personnel has also shown itself to be satisfactory in every respect. There has been no infraction of discipline among the men of the detachment.

The commandant, in closing his report, remarks that—

> The clerical force has performed its duties efficiently and satisfactorily.
>
> In view of the fact that the request for an appropriation for the building of an Army Medical School has been disapproved, and that the present building is too small for the enlarged classes that may be expected in the future, and generally very poorly adapted to the needs of the school, it has been recommended that another building be occupied for the purpose, and one has been selected at No. 604 Louisiana Avenue, which, while it increases the expenses very little, will give more than twice the space of the present building.
>
> It seems to me that too much time is given up to laboratory work in the school and not enough attention paid to sanitary tactics. I therefore recommend that in the future the students be required to spend at least two weeks in camp. A camp could be established on the grounds of the Walter Reed General Hospital, and two, or preferably three, well qualified medical officers selected to give the students some field training. While the laboratory work is very important, it is not strictly military, and the students have no opportunity of learning to care for themselves in camp, the details of camp sanitation, and the general duties of medical officers in the field.
>
> If it is practicable, it is considered that the post-graduate course for medical officers be repeated during the next session of the school for at least six officers of the corps if they can be spared for the purpose. Some of these officers might incidentally be utilized as instructors in the students' camp, if my recommendation for its institution is carried out and the necessary equipment for such a camp can be supplied from the Quartermaster Corps.

SPECIAL WORK BY MEDICAL OFFICERS.

BULLETINS.

In the sundry civil bill for 1916, under the appropriation for printng and binding for the War Department, it was provided:

> That the sum of $3,000, or so much thereof as may be necessary, may be used for he publication from time to time of bulletins under the direction of the Surgeon eneral of the Army for the instruction of medical officers when approved by the ecretary of War.

Under the authority mentioned above, two bulletins were issued uring the year, viz:

BULLETIN No. 9. Gunshot roentgenograms, a collection of roentgenograms taken in onstantinople during the Turko-Balkan War, 1912–13, illustrating some gunshot ounds in the Turkish Army, by Maj. Clyde S. Ford, Medical Corps.

BULLETIN No. 10. Officers of the Medical Reserve Corps, United States Army, nactive list, with post-office addresses of each, compiled under the direction of the urgeon General.

Material is now on hand for three bulletins, which will probably e issued some time during the fiscal year 1917.

ARTICLES BY MEDICAL OFFICERS.

NOTE.—It is desired to include in this list all articles written by medical officers uring the fiscal year. It is therefore requested that the title and place of publicaion of articles written by medical officers be sent to the office of the Surgeon General.

Articles by medical officers of the Army, July 1, 1915, to June 30, 1916.

Author.	Article.	Disposition.
rthur, Col. William H.	Postgraduate instruction at the Army Medical School.	Military Surgeon, February, 1916.
shford, Maj. Bailey K.	The dietetic treatment of sprue	Read by title before American Society of Tropical Medicine, San Francisco, Cal., July 14-16, 1915. American Journal of Tropical Diseases and Preventive Medicine, January, 1916.
Do	Surgery related to odontology	Revista Dental, Habana, Cuba, December, 1915.
Do	Further experimentation in animals with a monilia commonly found in sprue.	American Journal of Medical Sciences, April, 1916.
Do	Tropical diseases	Chapter for fourth volume of Musser and Kelly's Practical Treatment, 1916.
shford, Capt. Mahlon	A proposed motor-ambulance company.	Military Surgeon, October, 1916.
Do	The American doctor and military preparedness.	Awaiting publication.
arber, Capt. John R.	Sanitary problems of prison and concentration camps.	Read before Southwest Medical and Surgical Association, El Paso, Tex., Dec. 9-11, 1915; awaiting publication.
irmingham, Col. Henry P.	Coordination of the Medical Departments of the Army and Navy in campaign.	Military Surgeon, April, 1916.
ispham, Maj. William N.	A review of the sanitary service in the present war.	Awaiting publication.
amberlain, Maj. Weston P.	Demography in so far as it relates to the vital statistics of armies.	Do.
ristie, Capt. Arthur C.	A motor ambulance for field service.	Do.

Articles by medical officers of the Army, July 1, 1915, to June 30, 1916—Continued.

Author.	Article.	Disposition.
Cole, Capt. Clarence L	Report of a case of infection of lymph glands with Bacillus Paratyphosus B.	Journal of Infectious Diseases, April, 1916.
Connor, Capt. Clarence H	The special physical examination of aviators for the United States Army.	Awaiting publication.
Cooper, Capt. Alexander T	The Wassermann reaction and its relation to tuberculosis. (Collaborated with Capt. C. G. Snow.)	American Journal of the Medical Sciences, August, 1916.
Coulter, Capt. John S	Study of pathology of gall bladder and biliary passages in cholera.	Philippine Journal of Science, Manila, November, 1915.
Craig, Capt. Charles F	Observations upon complement fixation in the diagnosis of pulmonary tuberculosis.	Journal of Medical Sciences, December, 1915.
Do	Observations upon the endamœbæ of the mouth: I. Endamœbæ gilgivalis (buccalis).	Journal of Infectious Diseases, February, 1916.
Do	Importance of tropical diseases to American practitioner, as illustrated by their occurrence in the United States.	American Journal of Tropical Diseases and Preventive Medicine, July, 1915.
Do	Some practical points regarding the results and interpretation of the Wassermann test for syphilis.	Military Surgeon, March, 1916.
Culler, Capt. Robert M	An intermediate method of blood transfusion.	Awaiting publication.
Darby, Capt. Taylor E	Hygiene for the Boy Scouts	Pamphlet prepared for publication as a handbook for the Boy Scouts of America.
Davis, First Lieut. Henry L., Medical Reserve Corps.	A case of poisoning by methyl alcohol, fluid extract hamamelis, and a hair tonic, with recovery.	Awaiting publication.
De Laney, Maj. Matthew	Epidemic of bacillary dysentery due to Hiss-Russell bacillus.	Military Surgeon, May, 1916.
Duncan, Capt. Louis C	Some experiences of the territorial armies of France, 1870–71 (translation from the French).	Journal of Military Service Institution.
Do	The sanitary service (translation from the French Journal L'Illustration).	Military Surgeon, January, 1916.
Ebert, Col. Rudolph G	Some Medical Department problems of over-seas garrisons.	Military Surgeon, August, 1916.
Edger, Maj. Benjamin J., jr.	Some cases of appendicitis at Schofield Barracks, Hawaii.	Read before United Service Medical Society of Hawaii, Dec. 4, 1915; awaiting publication.
Ferenbaugh, Capt. Thos. L	A note concerning the occurrence of hydrophobia in the foxes of Alaska.	Military Surgeon, June, 1916.
Fisher, Lieut. Col. Henry C.	Preparedness of the Medical Department for war.	Military Surgeon, February, 1916.
Foster, Capt. George B., jr	Etiology of common colds	Journal of American Medical Association. Apr. 15, 1916.
Foucar, Capt. Frederick H	Bacillary dysentery, recent epidemic at Fort Shafter, Hawaii, from the laboratory aspect.	Military Surgeon, May, 1916.
Frick, Lieut. Col. Euclid B	Venereal disease in the Army	Read before Ninth Internationa Purity Congress, San Francisco Cal., July 22, 1915.
Gorgas, Maj. Gen. W. C., Surgeon General.	Tropical sanitation in its relation to general sanitation.	Address delivered before fifteent annual conference of health officer of New York State, at Rochester Sept. 6, 1915; Journal of America Medical Association, Dec. 25, 1915
Do	The relation that modern tropical sanitation will probably have on the future movements of populations.	Address delivered before Souther Commercial Congress at Charlesto S. C., Dec. 16, 1915.
Do	Report on the sanitation of Guayaquil.	The Southern Medical Journal, N vember, 1915.
Do	Dr. Carlos G. Finlay	Address delivered at forty-thir annual meeting of American Publ Health Association, Rocheste N. Y., Sept. 7, 1915.
Do	The effect that the sanitary work accomplished in Cuba and in Panama has had and will have upon the sanitation of the Tropics.	Address delivered before Vermo State Medical Society, Burlingto Oct. 14, 1915; Southern Medic Journal, February, 1916.
Do	Yellow fever	Commemoration volume of t American Medical Associatio 1915.
Hess, Maj. Louis T	Paper on recruiting	Awaiting publication.
Do	Deficiency of sanitary units of the Organized Militia.	Military Surgeon, April, 1916.

Articles by medical officers of the Army, July 1, 1915, to June 30, 1916—Continued.

Author.	Article.	Disposition.
opwood, Capt. Lucius L	Duties of ambulance companies	Military Surgeon, September, 1915.
untington, Capt. P. W	Transmissible diseases in war	New York Medical Journal, July 8, 1916.
Do	Camp sanitation	Awaiting publication.
ohnson, Capt. H. H	The trailer ambulance	Military Surgeon, July, 1916.
ohnson, Capt. T. H	Diseases complicating chronic pulmonary tuberculosis.	Awaiting publication.
ones, Capt. E. C	Transportation of ambulance companies.	Military Surgeon, November, 1915.
ones, Capt. Harold W	The organization of an ambulance company.	Awaiting publication.
ones, Capt. Percy L	Individual equipment for the Hospital Corps.	Read at twenty-fourth meeting of Association of Military Surgeons, Cincinnati, Ohio, September, 1915.
Do	The hospital train de luxe	Military Surgeon, October, 1916.
ean, Col. Jefferson R	Lessons of the great war	Presidential address delivered before Association of Military Surgeons, Washington, Sept. 13, 1915. Military Surgeon, October, 1915.
Do	New rôle of American Red Cross	Military Surgeon, May, 1916.
eefer, Lieut. Col. F. R	The sanitary problems of trench warfare.	Read before the annual meeting of United Service Medical Society of Hawaii, Honolulu, Jan. 8, 1916; Military Surgeon, June, 1916.
ing, Capt. Edgar	The military delinquent	Read before twenty-fourth annual meeting of Association of Military Surgeons, September, 1915: Military Surgeon, December, 1915.
Do	Certain problems in the treatment of criminals who are mentally abnormal.	Read before annual meeting of Kansas conference of Charities and Corrections, Lawrence, Kans., Nov. 19, 1915; published as part of proceedings of sixteenth annual conference of Kansas Society of Charities and Corrections meeting with Kansas Society of Criminal Law and Criminology.
Do	The use of habit-forming drugs (cocaine and its derivatives) by enlisted men.	Military Surgeon, October, 1916.
a Garde, Col. Louis A., retired.	The new war surgery requires more surgeons.	Military Surgeon, March, 1916.
eslie, Lieut. S. H., Dental Corps.	Dental service in the Army	Read before Massachusetts Dental Society, May 3–5, 1916; Journal of Allied Dental Societies, N. Y., June, 1916.
yster, Maj. W. J. L	Vaccination against typhoid in the United States Army.	Journal of American Medical Association, Aug. 7, 1915.
Do	Present status of disinfection of drinking water in the field.	Read at twenty-fourth annual meeting of Association of Military Surgeons, Cincinnati, Ohio, September, 1915; awaiting publication.
cKellar, Capt. Harry R	Malingering	Awaiting publication.
addux, Capt. H. C	Hospital treatment of acute gonorrhea.	Military Surgeon, December, 1915.
ichie, Capt. H. C	Rocky Mountain spotted (tick) fever (collaborated with Dr. Houston H. Parsons).	Medical Record, Feb. 12, 1916.
Do	A tuberculosis survey of an Eskimo village.	Awaiting publication.
ller, Maj. Reuben B	Proposed equipment for the Hospital Corps soldier.	Military Surgeon, April, 1916.
Do	The new manual for the Medical Department.	Military Surgeon, March, 1916.
Do	The new field belt for medical officers.	Military Surgeon, June, 1916.
udd, Capt. Leo C	Some experiences with venereal diseases at Schofield Barracks, Hawaii.	Read before United Service Society of Hawaii, Honolulu, Feb. 5, 1916; awaiting publication.
unson, Lieut. Col. Edward L.[1]	Medical preparedness for campaign	Read before Second Pan American Scientific Congress, Washington, D. C., Dec. 27, 1915; awaiting publication.
Do	The proper function of the Medical Department in relation to general staff work.	Read at Second Pan American Scientific Congress, Washington, D. C., Dec. 27, 1915; Military Surgeon, June, 1916.
lson, Maj. Kent	An Army motor ambulance	Read before twenty-fourth annual meeting of Association of Military Surgeons, Cincinnati, Ohio, September, 1915; Military Surgeon, February, 1916.

Numerous editorial contributions to the Military Surgeon, the official organ of the Association of Mili-
y Surgeons of the United States, of which he has been the editor secretary since the last annual meeting
he association in Washington, September, 1915, have been made by this officer.

Articles by medical officers of the Army, July 1, 1915, to June 30, 1916—Continued.

Author.	Article.	Disposition.
Nelson, Maj. Kent	The use of mercury salicylate in syphilis; a record of its influence on the Wassermann reaction in 50 cases (collaborated with E. A. Anderson, M. D.).	Journal of American Medical Association, Nov. 27, 1915.
Nichols, Capt. H. J	Possible reasons for lack of protection after antityphoid vaccination.	Read by title at twenty-fourth annual meeting of Association of Military Surgeons, Cincinnati, Ohio, September, 1915; Military Surgeon, March, 1916.
O'Connor, Lieut. C. M	A record march by sanitary troops	Awaiting publication.
Owen, Col. Wm. O	Relation of the Army Medical Corps and the Medical Reserve Corps to the Medical Corps of the Organized Militia.	Read at twenty-fourth annual meeting of Association of Military Surgeons, Cincinnati, Ohio, September, 1915; Military Surgeon, December, 1915.
Patterson, Maj. R. U	The American National Red Cross in first-aid and accident prevention.	Maryland Medical Journal, June, 1916.
Phalen, Maj. J. M	Typhoid prevention by bacterial vaccine.	Read before Outgamie County (Wis.) Medical Society and officers of Second Infantry, Wisconsin National Guard, Appleton, Apr. 29, 1915 Wisconsin State Medical Journal March, 1916.
Do	The Medical Reserve Corps, U. S. Army.	Read before Tristate Medical Society Chicago, Ill., Oct. 7, 1915; Chicag Medical Record, March, 1916.
Do	The Camp McCoy School for Sanitary Troops.	Read before twenty fourth annua meeting of the Association of Military Surgeons, Cincinnati, Ohio Sept. 15, 1915; awaiting publication.
Powell, Lieut. Cuthbert, Medical Reserve Corps.	A consideration of a few of the many lessons in medicine and surgery taught by the present European war.	Read at meeting of Denver City an County Medical Society, Denver Mar. 21, 1916; Colorado Medicine May, 1916.
Raymond, Col. H. I	Duties of Medical Supply officers and their methods (collaborated with Maj. Edwin P. Wolfe).	Military Surgeon, July, August, September, and October, 1916.
Do	Observations upon the cure of syphilis.	New York State Journal of Medicine January, 1916.
Reasoner, Capt. M. A	Some general information concerning the diagnosis and treatment of syphilis.	Awaiting publication.
Do	A case of hereditary syphilis	Read before District of Columbi Medical Society, Washington, Oc 6, 1915; Washington Medical Ar nals, November, 1915.
Do	Some phases of experimental syphilis, with special reference to the subject of strains.	Read before meeting of America Medical Association, Detroi Mich., June 14, 1916; awaiting pul lication.
Do	Early death from cerebral syphilis, with a successful rabbit inoculation: Report of a case.	Journal of American Medical Assoc ation, June 17, 1916.
Reno, Maj. Wm. W	A march and rail trip by sanitary troops.	Military Surgeon, September, 1915.
Do	The wheel litter travois	Military Surgeon, February, 1916.
Do	Pitching Army tentage	Infantry Journal, July-August, 1916
Do	Laying out a field hospital	Military Surgeon, August, 1916.
Reynolds, Maj. C. R	Local anesthesia	Read before United Service Medic Society of Hawaii, Jan. 8, 191 awaiting publication.
Schmitter, Capt. Ferdinand.	The treatment of leprosy	Awaiting publication.
Shaw, Lieut. Col. Henry A.	Transmissible diseases; syllabus of the.	Arranged for the course in milita hygiene, U. S. Military Academ 1916.
Shockley, Maj. M. A. W	The correspondence course for Medical Reserve officers as conducted at the Army service schools.	Military Surgeon, January, 1916.
Siner, Capt. J. L	The ductless gland	Awaiting publication.
Siler, Capt. Joseph F	Barbados in British West Indies	American Journal of Tropical D eases and Preventive Medici July, 1915.
Do	Pellagra in Jamaica	American Journal of Tropical D eases and Preventive Medici February, 1916.
Skinner, Maj. G. A	Surgical experiences in Jolo, P. I	Awaiting publication.
Smith, Capt. Lloyd	Syphilis as a cause of mental disease in the military service.	Military Surgeon, November and I cember, 1915.

Articles by medical officers of the Army, July 1, 1915, to June 30, 1916—Continued.

Author.	Article.	Disposition.
Snow, Capt. C. G.	The Wassermann reaction and its relation to tuberculosis (collaborated with Capt. A. T. Cooper).	American Journal of Medical Sciences, August, 1916.
Tasker, Capt. A. N.	The diagnosis and treatment of the flagellate diarrheas (collaborated with Dr. Arthur F. Chace).	Read before meeting of American Medical Association, Detroit, Mich., June, 1916; awaiting publication.
Van Poole, Maj. G. M.	A case of gunshot wound of abdomen with immediate operation.	Military Surgeon, December, 1915.
Do.	An epidemic of dysentery at Fort Shafter, Hawaii, with 3 cases of Hiss-Russell or Y bacillus infection.	Military Surgeon, May, 1916.
Vedder, Capt. E. B.	Beriberi and cottonseed poisoning in pigs: A preliminary note (collaborated with Dr. Geo. H. Rommel).	Journal of Agricultural Research, vol. 489, Dec. 13, 1915.
Do.	Prevalence of syphilis.	Therapeutic Gazette, May 15, 1916.
Do.	The known and unknown with regard to the etiology and prevention of beriberi.	Read before Section VIII, Second Pan American Scientific Congress, Washington, D. C., December, 1915; Military Surgeon, October, 1916.
Do.	The relation of diet to beriberi.	Read at meeting of American Medical Association, Detroit, Mich., June, 1916; awaiting publication.
Do.	Remarks on the prevalence and prevention of syphilis.	Social Hygiene, July, 1916.
Von Schrader, Capt. A.	The importance of the early recognition of syphilis as a causative factor in delayed union of fractures.	Awaiting publication.
Wadhams, Maj. S. H.	Report of discussion at joint camp of instruction for sanitary troops, Tobyhanna, Pa.	Do.
Do.	The civilian physician's part in the scheme of preparedness.	Do.
Wilcox, First Lieut. R. W., Medical Reserve Corps.	Medical Corps in peace and war.	Address delivered before graduate class of Army Medical School, Washington, D. C., June 1, 1915; Military Surgeon, July, 1915.
Wilde, Capt. A. G.	Army medical records.	Awaiting publication.
Wolfe, Maj. Edwin P.	Duties of Medical Supply officers and their methods (collaborated with Col. H. I. Raymond).	Military Surgeon, July, August, September, and October, 1916.

SANITARY TROOPS—NATIONAL GUARD.

Since the date of last report the following new organizations have been completed up to June 30, 1916: 4 ambulance companies, 3 field hospitals, and 14 detachments, making a total of 22 ambulance companies, 31 field hospitals, and 174 detachments. Since June 30 there have been completed 4 ambulance companies and 7 field hospitals, making a total of 8 ambulance companies and 10 field hospitals organized since last report. The following table shows the existing sanitary units and the number required for the 12 National Guard divisions, also the States furnishing same, and those deficient:

Division.	States comprising divisional districts.	Organized.	Shortage.
Fifth	Maine, none; New Hampshire, 1 F. H.; Vermont, none; Massachusetts, 2 F. H. and 2 A. C.; Connecticut, 1 F. H. and 1 A. C.; Rhode Island, 1 A. C.	4 F. H. 4 A. C.	None.
Sixth	New York, 4 F. H. and 4 A. C.	4 F. H. 4 A. C.	Do.
Seventh	Pennsylvania, 2 F. H. and 2 A. C.	2 F. H. 2 A. C.	2 F. H. 2 A. C.
Eighth	New Jersey, 1 F. H. and 1 A. C.; Delaware, none; District of Columbia, 1 F. H.; Maryland, 1 F. H. and 1 A. C.; Virginia, 1 F. H.; West Virginia, none.	4 F. H. 2 A. C.	2 A. C.

Division.	States comprising divisional districts.	Organized.	Shortage.
Ninth	North Carolina, 1 F. H. and 1 A. C.; South Carolina, 1 F. H.; Georgia, 1 F. H.; Florida, 1 F. H.	4 F. H. 1 A. C.	3 A. C.
Tenth	Kentucky, 1 F. H. and 1 A. C.; Tennessee, 1 F. H. and 1 A. C.; Alabama, 1 F. H. and 1 A. C.; Mississippi, none.	3 F. H. 3 A. C.	1 F. H. 1 A. C.
Eleventh	Ohio, 3 F. H. and 2 A. C.; Michigan, 1 F. H. and 2 A. C.	4 F. H. 4 A. C.	None.
Twelfth	Illinois, 2 F. H.; Indiana, 1 F. H. and 2 A. C.	3 F. H. 2 A. C.	1 F. H. 2 A. C.
Thirteenth	Iowa, 1 F. H. and 1 A. C.; Wisconsin, 1 F. H.; Minnesota, none; North Dakota, none; South Dakota, none.	2 F. H. 1 A. C.	2 F. H. 3 A. C.
Fourteenth	Colorado, 1 F. H.; Nebraska, 1 F. H.; Missouri, 1 F. H. and 1 A. C.; Kansas, none; Wyoming, none.	3 F. H. 1 A. C.	1 F. H. 3 A. C.
Fifteenth	Louisiana, 1 F. H.; Oklahoma, 1 F. H. and 1 A. C.; Texas, 1 F. H.; Arizona, none; New Mexico, none; Arkansas, none.	3 F. H. 1 A. C.	1 F. H. 3 A. C.
Sixteenth	California, 1 F. H. and 1 A. C.; Utah, 1 F. H.; Washington, none; Oregon, none; Idaho, none; Nevada, none.	2 F. H. 1 A. C.	2 F. H. 3 A. C.
	Total	38 F. H. 26 A. C.	10 F. H. 22 A. C.
	Total units	64	32.

While this increase in sanitary units is encouraging, it was largely due to mobilization of the National Guard, with prospects of active service. Newly organized sanitary units, under most favorable conditions, could not be made ready for efficient service in campaign within a less period than six months of intensive training after receiving their equipment and transportation. The formation of these organizations should not await the necessity for them by a threatened conflict. They should be organized, equipped, and trained in time of peace. If this mobilization results in impressing upon the medica profession and the responsible State authorities the necessity of adequate sanitary units, properly trained and equipped in time of peace it will have done much toward the cause of preparedness.

The strength of the sanitary troops on June 30 was 884 officer and 4,436 enlisted men, a total gain of 884 during the year. Th strength has been greatly augmented since mobilization by new units and detachments, also by increasing the personnel of organizations to war strength.

Out of a total of 884 commissioned officers, 125 were not inspected Of 4,436 enlisted men, 539 were absent from the inspection. Whil this is an improvement over last year, yet it is a large number fo which there is no accurate information as to their suitability an qualifications for military service.

In the majority of the States the efficiency of the sanitary troop relative to organization, training, and equipment shows improvement over last year, although it is far from having reached th desired standard which is necessary if immediate use of these organizations for campaign is considered. The degree of efficiency differ widely. In many States but a short period of preparation would b needed to make the sanitary troops ready for field service. In others however, much time and labor would be required.

INSTRUCTION AND TRAINING.

In addition to the number of inspector-instructors reported las year, one other was authorized and assigned to the States comprisin the fifth division, making a total of 6 medical officers of the Regul Army on this duty. All have shown commendable zeal in their effor o increase interest among the sanitary troops, and to improve their fficiency, but the number is entirely inadequate to accomplish the esults desired. However, the results have been so gratifying and he numerous requests from States for additional officers, warrants he detailing of at least five or six medical officers to each of the 12 livisional districts. This would make it possible for frequent visits f instruction to sanitary organizations, while with the present numer only two visits of instruction can be made to the organizations n the district to which the inspector-instructor is assigned, and this ertains only to the fifth, sixth, seventh, eighth, ninth, tenth, eleventh, welfth, and part of the thirteenth divisions. The sanitary organzations of the remaining divisions can not be accorded this opporunity for personal instruction because of lack of sufficient inspectornstructors. The number of sergeant-instructors for sanitary troops vas increased during the year by three at the earnest request of the Iilitia Bureau, making a total of 15 on this important duty. The esult of their work warrants the detailing of a sergeant of the Medical Department for each National Guard sanitary unit, and sufficient dditional ones to provide adequate instruction to the sanitary letachments. The value accruing to the Federal Government of letailing of officers and noncommissioned officers with the National uard from the viewpoint of increasing their efficiency can not be verestimated. The money spent in this way will produce results hat can not be secured by any other method.

CORRESPONDENCE COURSE.

In addition to the personal instruction, a correspondence course or medical officers of the National Guard was conducted by the aspector-instructors. Upon request, the War Department detailed ufficient medical officers from near-by posts, who, in addition to heir post duties, conducted the correspondence course in these States or which no sanitary inspector-instructors were provided. While hese officers performed the duty assigned to them in a satisfactory nanner and the medical officers of the National Guard were able to et some theoretical instruction, yet the numerous changes of staon of these officers seriously interfered with the work and made impossible to secure the good results obtained by the inspectornstructors. The policy adopted last year of having all the questions repared and sent out from the Militia Bureau establishing a uniform, ystematized, and correlated course, has proved much more satisctory than the previous method of having each inspector-instructor repare the questions for his district. It is deemed advisable to ontinue this method. More than 60 per cent of the medical officers ccessfully completed the prescribed course. No reports were ceived from some States, partly due to the mobilization order, d partly to the necessity of sending the medical officers conducting e course to the border for duty. The best showing was in States aving medical officers detailed as inspector-instructors.

PHYSICAL EXAMINATION AND TRAINING.

Recent reports received show that all States, except two, have lopted the physical standards prescribed for the Regular Army, d the majority of the States claim a rigid enforcement of same.

Reports of inspectors indicate that great laxity exists in the majority of the States in this matter, which has been confirmed by the recent mobilization. In view of the fact that the requirements of the regula service make it necessary that the physical findings at each and every enlistment and reenlistment must be passed upon by a medical officer it would appear that the Medical Corps of the National Guard was responsible for any of the personnel found physically disqualified. This is no doubt true to a certain extent. However, in order to determine to what extent they are responsible, those who were enlisted without a physical examination, those who were enlisted in spite of rejection by medical officers, and those who were examined by civilian doctors whose reputation was not at stake, should be eliminated. It is not deemed advisable to expend money on the training and instruction of men who, when needed for active service are found to be physically disqualified. Every man in the Nationa Guard should be physically qualified for any duty devolved upon him This can best be accomplished by instituting a thorough physica reexamination of each person as soon as practicable after enlisting and reenlisting in the National Guard by a medical officer of the regular service, also that the same be done annually for the commissioned personnel. In this way the physically disqualified coul be weeded out, and those having defects that are not disqualifyin could have them waived, resulting in not more (barring venerea diseases and acute maladies) than 1 per cent of the personnel bein found disqualified when called into the Federal service.

There are a large number of persons rejected for physical defects such as poor physique, deficient chest expansion, and similar defects who do not conform to the prescribed standard physical requirements but who under proper physical training would in a short time mee these requirements and be able to endure the physical strain of campaign. If more time and attention were paid to the physical development and training of a soldier, a large number of the above typ of men could in time of peace be enlisted in the National Guard an Army without decreasing its efficiency.

TYPHOID PROPHYLAXIS.

There is very little change in the status of typhoid prophylaxis a reported last year. Some States have given considerable attention t the matter, while others have not. The annual inspection repo shows that 2,481 officers and 24,866 enlisted men had received complete antityphoid prophylaxis out of a reported strength of 8,86 officers and 129,333 enlisted men, making a total of 27,347 protecte against typhoid fever out of a total strength of 138,197. As compared with the report of last year, showing 22,551 receiving comple antityphoid prophylaxis out of a total strength of 129,398, makin 19.78 per cent during the past year, as against 17.4 per cent durin the year previous. This increase is encouraging. However, t large a percentage are unprotected. It is believed the recent mobilization, which brought the National Guard under regulations prescribed for the Regular Army, requiring vaccination of all persons the Federal service, will do much toward further popularizing the preventive measures, and it is further believed that the time has arrived to make it compulsory in the National Guard, thereby makin it prepared for a hasty call into the Federal service.

ACT OF JUNE 3, 1916.

The act of June 3, 1916, contains much beneficial legislation, which, when enforced, will greatly improve the efficiency of the Medical Department of the National Guard. It provides for uniform courses of armory and field instruction, along lines prescribed for the Regular Army. It provides for an increased number of inspectors and sergeant instructors. It provides for horses for the sanitary troops, and it provides for examination of medical officers and noncommissioned officers under Federal supervision. It will mean greater devotion to duty, and acquisition of military knowledge on the part of the personnel.

CONSTRUCTION AND REPAIR OF HOSPITALS.

During the past year plans and specifications were prepared and contracts were entered into for the construction of additions to hospital buildings at the following general hospitals and military posts:

Letterman General Hospital, San Francisco, Cal.—New concrete ward, medical and surgical dispensary, addition to nurses' dormitory, and an addition to the department laboratory.

Fort Bliss, Tex.—Rear annex addition to hospital containing kitchen, mess room, and dormitories for the Hospital Corps detachment.

Fort Sam Houston, Texas.—Building for central heating plant, a department laboratory, dormitories for the Hospital Corps detachment, and a surgical pavilion.

Temporatory buildings for hospital purposes in connection with the Mexican border were also provided from the appropriation for construction and repair of hospitals at Fort Bliss, Camp Douglas, and Fort Sam Houston.

In addition to the regular annual appropriation for construction and repair of hospitals, Congress appropriated $100,000 to construct temporary buildings for hospital purposes on the Mexican border, or where necessary. Fifty-eight thousand dollars of these funds went to Brownsville, Eagle Pass, and Laredo, Tex., and Nogales, Ariz., and $25,000 to Fort Sam Houston, Tex. The $17,000 remaining will be needed for additional construction at the first four places, and request was made for $1,000,000 additional to provide for general hospitals and temporary hospital accommodations for the large number of troops on duty at the Mexican border.

The following hospital buildings which were contracted for during the fiscal year which ended June 30, 1915, have been completed: Building for central heating plant, Fort Leavenworth, Kans. Rear annex addition to hospital, Fort Oglethrope, Ga., containing kitchen, mess room, and dormitories for the Hospital Corps detachment. Clinic laboratory and nurses' dormitory, department hospital, Honolulu, Hawaii. Rear annex addition to hospital Fort Terry, N. Y., containing kitchen, mess room, and dormitories for the Hospital Corps detachment. Hospital Corps barrack building, storehouse, and one double set of noncommissioned officers quarters for the Army and Navy General Hospital, Hot Springs, Ark., also addition to ward building No. 6, operating pavillion and diet kitchen. A ward for special surgical cases, a new concrete ward, and an addition to the Nurse Corps dormitory were completed for the Letterman General Hospital, San Francisco, Cal., and a ward for ambulant patients at the General Hospital, Fort Bayard, N. Mex.

An allotment of $40,000 was made from the appropriation for construction and repair of hospitals for use in the Philippine Department during the fiscal year, and $1,000 was allotted from the appropriation for quarters for hospital stewards, for quarters for sergeants, first class, Hospital Corps, to cover the cost of construction and repair of quarters for these noncommissioned officers in the Philippine Islands.

In addition to the foregoing, all general hospitals in connection with the Army, and the hospitals at military posts were improved or kept in proper repair so far as funds would permit. Temporary hospitals for standing camps and cantonments were also provided in a number of cases.

The Army and Navy General Hospital, Hot Springs, Ark., has been improved in a manner to meet several of the most important necessities, and it is believed that sufficient additional accommodations fo patients can be provided when required by inclosing the porches wit glazed sash, thus avoiding the necessity for further ward buildings and no new construction is estimated for this general hospital for th fiscal year 1918.

General Hospital, Fort Bayard, N. Mex.—A few years ago authorit was given to erect three additional ward buildings for this genera hospital, but it was possible to enter into contact for the erection o only two of these wards, and the following buildings are now necessary: One infirmary for enlisted men, estimated to cost $50,000; on infirmary for officers, estimated to cost $60,000, and an addition to th officers' dormitory, estimated to cost $40,000, or a total of $150,000 and funds for these buildings have been included in the annual estimate for the fiscal year 1918.

Letterman General Hospital, San Francisco, Cal.—The wards of thi hospital are constructed of wood, and have been in use for quite number of years, and are dangerous in case of fire. It is proposed t safeguard the lives of patients by replacing these wooden building from time to time with reinforced concrete structures, and $75,000 i included in the annual estimate for the fiscal year 1918, to be used fo this purpose.

Walter Reed General Hospital, Takoma Park, D. C.—This is one four general hospitals. It is one of the most important, and is use for the treatment of officers, retired officers, patients from Washin ton Barracks, enlisted men, special cases, observation of patien under consideration for discharge on account of disability, and for t education of students attending the Army Medical School. Ne buildings and additions have been erected from time to time. Tw new one-story wards have lately been added to the east and west en of the administration building, and these two ward wings require a ditional stories to complete them. The additional room is necessa and these improvements are estimated to cost $90,000, and funds f this purpose have been included in the annual estimate for the fisc year 1918.

As stated in previous reports, new modern hospitals are requir at various military posts to replace old and dilapidated structur which have been in use for many years, and which require large sur of money annually for repairs and improvements. New buildings of modern type would be economical, but it is impossible to erect a suitable modern military hospital for the maximum sum allowed by aw from the general appropriation for such purposes. Section 1136, Revised Statutes of the United States, limits the cost of permanent structures to $20,000, unless special authority is first obtained from Congress. This law was enacted in or before 1859 when material and labor were much lower in price than they are at present, and before many modern plumbing and other necessary fixtures were available which are now indispensable. The statute limiting cost should be modified to suit present conditions.

Fort Michie, N. Y.—The hospital at this post is a temporary wooden structure, and the inspecting officer stated September 14, 1915, that the hospital building is unsuitable, and if it is intended to maintain a permanent garrison at Fort Michie, a new hospital will be needed. In 1905, the Secretary of War authorized the use of funds to erect a new hospital at this post, but owing to location, cost of transportation, etc., it was not possible to erect a suitable hospital within the limit of cost fixed by section 1136, Revised Statutes of the United States. A modern hospital for this post is estimated to cost $30,000.

Fort McPherson, Ga.—The hospital at this post is in size entirely nadequate. It is located in close proximity to a railroad and has no cellar except a small excavation for a heating apparatus, which was made some years after the building was erected. The heating and ventilation are not suitable for a modern hospital. The plumbng is crude, and efforts have been made from time to time to improve t, but it falls far short of meeting the modern sanitary requirements. The operating room is located in a small annex, with a small laboraory adjoining. There is no instrument room, etherizing room, preparation room, nor surgical ward. There is no suitable ward for the solation of contagious diseases, nor prison ward; and the Hospital Corps detachment is quartered in an old temporary wooden building which was erected for use as a ward during the Spanish-American War. The mess room and kitchen are too small and are unsuited for heir purpose, it being necessary to set tables two or three times to ccommodate the patients. The entire hospital is such that it would be in the interest of economy to replace it with a modern structure. A hospital should be erected with a capacity of 87 beds for patients, necessary attendants, noncommissioned officers, etc. The estimated ost of such a building is $90,000.

Fort Dade, Fla.—In 1910 the surgeon at this post recommended hat a new hospital be erected, and stated:

> The kitchen and dining room are near the center of the building, and it is necessary pass through them in going from the operating room to the ward. The ward is too mall, and the quarters for hospital corps men are inadequate. It is not believed hat the present structure can be remodeled to meet the requirements of a modern ospital.

The present hospital is entirely inadequate and unsuitable. It is temporary structure with crude plumbing, lacks modern appliances, nd the conditions are such that they can only be remedied by the rection of a new hospital. A suitable building is estimated to cost 35,000.

Schofield Barracks, Hawaii.—The department authorities prepare
sketch plans for a 250-bed hospital, which is considered necessary fo
this post. An approximate estimate of the contemplated strengt
of the garrison of Schofield Barracks is 6,000 men, and this wil
require the number of beds estimated for. In addition to the be
capacity, other buildings will be needed in the future to complete th
group, but six wards and an administration building will be sufficien
for the present. The estimated cost of these buildings is $150,000.

Army Medical School.—This school occupies a rented building i
the city of Washington, at a rental of $8,680 per annum. As it i
one of the permanent service schools it would be much more economi
cal, as well as more fitting and convenient, for it to be housed i
buildings erected by the Government. It is proposed to locat
these on the tract of land occupied by the Walter Reed Genera
Hospital, so that the students may have the clinical advantages an
the instruction in administration afforded by the hospital, and tha
the hospital may enjoy the laboratory conveniences of the school
These buildings are estimated to cost $350,000.

Quarters for sergeants, first class, Hospital Corps.—Owing to th
limited appropriation for these buildings, it was not possible to erec
additional quarters, and various necessary additions and improv
ments had to be disallowed. A number of large military posts ar
in need of such quarters for these noncommissioned officers, and th
appropriation should be liberal until such time as the Hospital Cor
sergeants are supplied with suitable habitations. Eleven single se
and seven double sets of these quarters are needed, but only the mos
necessary are included in the annual estimate for the fiscal year 191

Estimates for new construction which is essential to the proper ca
of the sick have been for some years lopped off the estimates i
accordance with the instructions of the Secretary of War in order t
reduce the War Department estimates until the necessities of t
department, in this respect, have become very urgent and have acc
mulated to a large total. The following are the items which are co
sidered to be most necessary, and are accordingly included in t
estimates laid before the Secretary of War for the fiscal year 1918:

New construction:	
Army general hospital, Fort Bayard, N. Mex	$150, 0
Letterman General Hospital, San Francisco, Cal	75, 0
Walter Reed General Hospital, Takoma Park, D. C	90, 0
Fort Michie, N. Y	30,
Fort McPherson, Ga	90,
Fort Dade, Fla	35,
Schofield Barracks, Hawaii	150,
To enlarge and improve hospitals at Artillery posts	50,
Additions and repairs, general hospitals	65,
Repairs, hospitals, all posts in the United States	200,
Repairs, Hawaiian Department	30,
Repairs, Philippine Department	50,
Army Medical School	350,
Total for construction and repair of hospitals	1, 365,
Hospital Corps sergeants' quarters:	
6 single sets, new quarters	21,
4 double sets, new quarters	26,
Philippine Islands, repairs, etc	1,
Repairs, all posts in the United States	15,
Total for Hospital Corps sergeants' quarters	63,

MEDICAL AND HOSPITAL SUPPLIES.

The appropriation made by Congress for the fiscal year 1916 for ie support of the Medical Department was $787,500, this being $7,500 more than the amount appropriated for the fiscal year 1915.

The new Manual for the Medical Department was completed and eady for promulgation about June 15. It is being issued by The djutant General of the Army. This manual prescribes a medical fficer's belt and a belt for the Hospital Corps medical equipment, oth recommended by the equipment board. The latter is intended take the place of the pouch, Hospital Corps, M. M. D., 1911. ince this new personal equipment has been approved various diffi- ılties have arisen with reference to the manufacture of the other rdnance equipment which should be issued with it. The issue of is equipment is therefore being held in abeyance, and the old equip- ent will be continued in use for the present.

The medical supply depot at Galveston, Tex., being no longer eeded, was discontinued about January 7, 1916. Field medical ıpply depots have been established at San Antonio and El Paso, ex., for the purpose of promptly furnishing supplies to the border mps. A reserve medical supply depot was also temporarily estab- shed at the advance base, Columbus, N. Mex. Later this was dis- ntinued, it being decided that all necessary supplies for this vicinity uld be satisfactorily obtained from the El Paso depot. In addi- on a divisional reserve supply was furnished to the punitive expe- tion and located at Colonia Dublan, Mexico. A new medical sup- y depot for the storage and issue of both post and field supplies as established in Honolulu, Hawaii, in March, 1916.

Motor ambulances have been furnished to the ambulance companies in Mexico, and field hospital No. 7 has been equipped with otor trucks. Ambulances of the following type have been pur- ased: G. M. C., Buicks, White, Service, and Fords. Trailers were so furnished with these ambulances for trial. The light cars and ailers were found to be unsatisfactory for use in Mexico.

At the beginning of the militia mobilization period the officers in arge of the medical supply depots at New York and St. Louis were rected to purchase full ward equipment for one hundred 50-bed rds as promptly as possible, with a view to having these complete uipments ready for emergency use on the border.

Sufficient typhoid and smallpox vaccines were furnished to each bilization camp for the immunization of the Organized Militia, d a camp hospital was furnished to each mobilization camp not ated at a post for the care and treatment of members of the Orga- ed Militia who required such attention at the camp. The post spital and medical supplies were available for the use of all mobili- tion camps located at Army posts.

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs and apparatus or com- tation therefor, orders on manufacturers were given during the al year for 22 artificial legs and 1 foot. Commutation certifi- es were issued for 129 cases of amputated leg, 77 of amputated n, 9 of amputated foot, and 1,320 cases of loss of use of limb.

Under the act of June 17, 1870, and subsequent amendments thereto, 23,703 disabled soldiers and sailors have been furnished artificial limbs and apparatus or have received commutation in money since the passage of the act, as follows:

Total number benefited to June 30, 1916	23,703
Died	16,053
Dropped from rolls	592
Rejected after one or more payments	572
Remaining on rolls at end of fiscal year	6,486
Loss of beneficiaries during the year	367

It is estimated that the sum of $210,000 will be required to pay the claims during the fiscal year ending June 30, 1918.

APPLIANCES AND TRUSSES.

One hundred and sixteen appliances were issued during the fiscal year ending June 30, 1916, and 204 trusses for disabled soldiers were furnished and fitted.

LIBRARY OF THE SURGEON GENERAL'S OFFICE.

During the year 430 books and 3,407 pamphlets and journals were presented to the library, and 256 portraits were added to the collection. The library now contains 226,128 volumes, bound and unbound (of which 191,802 are bound), and 337,110 pamphlets, a total of 563,238 volumes and pamphlets. It is now receiving 1,895 periodicals exclusive of transactions of societies. Eight hundred and two volumes were bound during the year. The following table shows in detail the additions made to the library during the year:

	On hand June 30, 1915.	Added during fiscal year.	Total June 30, 1916.
Medical journals	60,480	1,895	62,37
Medical transactions	8,990	47	9,03
Bound theses	3,099	492	3,59
Other bound volumes	113,068	3,731	116,79
Total	185,637	6,165	191,80
Unbound volumes	33,888	438	34,3
Pamphlets	241,653	95,457	337,11
Total	275,541	95,895	371,4

Volume XXI of the second series of the Index Catalogue is in cours of preparation and will appear in due time. A complete list, arrange alphabetically, of the medical periodicals and transactions of socie ties in the library will be published with this, the concluding volum of the second series of the catalogue.

To meet the needs of the library in its scientific and technic branches, the following changes have been submitted in the estimate

Principal assistant librarian, from $2,250 to $2,500 per annum, an increase of	$2
Assistant librarian, from $1,800 to $2,000 per annum, an increase of	2
Superintendent of reading room, $1,800 (from clerk at $1,600), an increase of.	2
Superintendent of library hall, $1,800 (from clerk at $1,400), an increase of.	4
Total increase	1,0

Of this increase, $500 was made up last year by the abolition of one clerkship at $900 with this end in view. The net increase asked for over former appropriations is, therefore, $550.

These increases are necessary to give salaries equivalent to those paid in other departments of the Government (Library of Congress, etc.). The salaries in this library have been at a standstill for many years, while other departments have had increases. This was due, perhaps, principally to the fact that the employees here have been mostly designated as clerks, although doing the same class of work as men with professional titles elsewhere. The change is especially necessary in view of the very large Army expansion now taking place. It is hoped that the continued efficiency of the library may be provided for in this way by Congress at its next session.

It is also urgently recommended that the following provision be nserted in the legislative, executive, and judicial bill:

> SUNDAY OPENING: To enable the library of the Surgeon General's Office to be kept open for reference use from four-thirty until ten o'clock, post meridian, daily, nd from two until ten o'clock post meridian on Sundays and legal holidays, within he discretion of the librarian, including the extra services of employees and the ervices of additional employees under the librarian, $5,000, or so much thereof as may be necessary."

This would put the Surgeon General's library on the same basis as to opening as the Library of Congress, and it is asked for in response to urgent demands from the medical profession of the country for mproved service by the library.

ARMY MEDICAL MUSEUM.

The total number of specimens in the museum at the close of the fiscal year June 30, 1916, is 47,313.

The following statement shows in detail the additions and changes in the different sections:

Pathological section:		
In museum June 30, 1915		13, 03
Discarded	5	
Donated	123	
		12
		12, 91
Received during the year		17
In museum June 30, 1916		13, 08
Anatomical section:		
In museum June 30, 1915		1, 20
Received during the year		4
In museum June 30, 1916		1, 25
Comparative anatomy section:		
In museum June 30, 1915		62
Donated		2
In museum June 30, 1916		60
Microscopical section: In museum June 30, 1915 and 1916		12, 91
Miscellaneous section:		
In museum June 30, 1915		3, 97
Discarded		
		3, 97
Received during the year		4
In museum June 30, 1916		4, 01
Provisional anatomy section: In museum June 30, 1915 and 1916		29
Photographic section including negatives:		
In museum June 30, 1915		14, 94
Received during the year		20
In museum June 30, 1916		15, 14

RECAPITULATION.

In museum June 30, 1915	46, 99
Discarded and donated	15
	46, 84
Added during the year	47
In museum June 30, 1916	47, 31

The following are some of the more interesting specimens received uring the year ending June 30, 1916:

Malformations.—Specimen 14491, a pig showing syncephalus; urchased. Specimen 14621, male infant showing dicephalus ibrachius; purchased. Specimen 14479, skull of idiot showing icrocephaly; capacity 765 cubic centimeters; purchased. Specimen 4455, skull of adult showing deformity caused by premature closure of utures; purchased. Specimen 14621, dicephalus dibrachius, human; urchased.

Ectopic pregnancy.—Specimen 14406, tubal pregnancy at two onths removed by operation; recovery; woman, aged 42. Con-ributed by Capt. J. W. Hanner, Medical Corps, United States Army.

Animal parasites.—Specimen 14587, hookworm exhibit of the nternational Health Commission; consists of models, transpar-ncies, photographs, and stereomotograph. Specimen 14511, filaria anguinis hominis Bancrofti. Contributor, Dr. Leonel Plasencia, abana, Cuba. Specimens 14624–14626, Echinococcus cysts in ver and spleen; soldier, aged 22. Died suddenly. Contributed by apt. C. T. King, Medical Corps, United States Army.

Fibro-sarcoma of leg.—Specimen 14494, soldier, aged 35; amputa-ion of leg; recovery. Contributed by Maj. G. A. Skinner, Medical orps, United States Army.

Hernia through diaphragm.—Specimen 14457, colon through dia-hragm; man, aged 40; had lifted heavy weight; died the thirteenth ay. Contributed by Col. G. L. Edie, Medical Corps, United States rmy.

Quintuplets.—Specimen 14503, born at seven and a half months; ll males; one placenta; five cords; lived from 5 to 15 days; purchased. xceedingly rare; about once in more than a million births.

Amebic dysentery.—Specimen 14461, large ulcers of colon, edges artly healed; soldier, aged 57; died of bowel obstruction from peri-oneal adhesions. Contributed by Col. H. C. Fisher, Medical Corps, nited States Army.

Brain.—Specimen 14471, acute meningitis from streptococcus; an, aged 35. Had protrusion of eyes and thrombus in ophthalmic eins. Original cause believed to have been a boil on the nose. ontributor Dr. J. H. Bryan, Washington, D. C. Specimen 14451, ute purulent meningitis, from staphylococcus pyogenes aureus. ldier, had acute endocarditis (see 14452). Contributed by Capt. W. Griesinger, Medical Corps, United States Army. Specimen 405, abscess in left frontal lobe, streptococcus and pneumococcus. rom an old soldier who had a small abscess also in mediastinal mphatic nodes. Contributor, Capt. A. D. Tuttle, Medical Corps, nited States Army.

Heart.—Specimen 14493, adhesive pericarditis; calcareous plates. me case as 14492, cancer of liver. Contributor, Capt. C. L. Cole, edical Corps, United States Army. Specimen 14452, acute endo-rditis vegetations on mitral valve; soldier. Same case as 14451, eningitis. Contributor, Capt. J. W. Griesinger, Medical Corps, nited States Army. Specimen 14510, acute gonorrheal endocarditis; lture showed gonococci; soldier, aged 26. Contributor, Col. G. L. die, Medical Corps, United States Army.

Goiter.—Specimen 14472, adenoma, from a man. Contributor, pt. D. P. Card, Medical Corps, United States Army.

Myelogenous leukemia.—Specimen 14622, spleen weighing 8½ pounds. Soldier, aged 41. Had been ill about a year. Contributor, Capt. A. D. Tuttle, Medical Corps, United States Army.

Teeth.—Specimens 14463 to 14465, anomalies and diseases. Contributor, First Lieut. H. G. Voorhies, Dental Corps, United States Army.

Duodenum perforating ulcer.—Two cases, specimen 14458, soldier, aged 28, was ill three days, had had "indigestion." Also specimen 14459, a soldier. Both specimens contributed by Capt. H. J. Nichols, Medical Corps, United States Army.

Appendicitis.—Specimen 14623, large concretion in appendix; from a soldier; appendectomy; recovery. Contributor, Capt. C. E. Doerr, Medical Corps, United States Army.

Ileum.—Diverticulum, specimen 14627, causing fatal bowel obstruction. Contributor, First Lieut. S. T. Millard, Medical Corps, United States Army.

Liver.—Specimen 14508, shot laceration; soldier; died four hours after injury. Contributor, Capt. H. J. Nichols, Medical Corps, United States Army. Specimen 14568, abscess; amebæ not found; man, aged 37, had been fireman 15 years on transport. Contributor, Capt. W. H. Allen, Medical Corps, United States Army. Specimen 14492 primary carcinoma, weight 11 pounds 2 ounces; soldier; had also adhesive pericarditis (14493), Contributor, Capt. C. L. Cole, Medical Corps, United States Army. Specimen 14509, common bile duct obstructed by gallstone; woman; aged 45; had had epigastric pain for 16 years; obstructive jaundice for 2 months; hemorrhage from bowel. Contributor, Col. G. L. Edie, Medical Corps, United States Army.

Urinary organs.—Specimen 14456, kidney; weight, 46 ounces; multiple cysts and miliary abscesses; other kidney in same condition; man, aged 47; specimen removed after death. Contributor, Lieut. T. S. Proxmire, Medical Reserve Corps, United States Army. Renal calculi, three cases; specimens 14467, 14468, and 14469; from soldiers removed by operation; recovery. Contributed by Capt. J. W. Hanner, Medical Corps, United States Army. Specimen 14462, calculus from ureter; discharged through urethra; man, aged 18. Contributor, Capt. J. L. Robinson, Medical Corps, United States Army Specimen 14470, calculus from urinary bladder; removed by operation, recovery; soldier. Contributor, Capt. J. W. Hanner, Medica Corps, United States Army. Specimen 14629, laceration of kidney from kick of mule; nephrectomy; recovery. Contributor, Maj. R. F Metcalfe, Medical Corps, United States Army. Specimen 14628 uterine fibroid; woman, age 41; hysterectomy. Contributor, Capt W. H. Moncrief, Medical Corps, United States Army.

Bone.—Specimens 14497 to 14499, multiple injuries; specimen 14497, healed fracture right radius; specimen 14498, dislocation righ hip joint; head of femur atrophied; acetabulum perforated; specimen 14499, healed fracture left femur. From woman about 38 year of age; purchased. Specimens 14577, 14578, osteomalacia; sku and pelvis; from an idiot, aged 26, who had also spondylitis deformans; purchased. Specimens 14569 to 14586, series of bone from Indian burial places, showing anomalies, fractures, and inflammation. Contributor, Clarence Moore, Philadelphia, Pa. Also series bones showing anomalies, inflammation, fractures, and dislocations. Purchased.

Anatomical dissections.—Specimens 4177 to 4184 and 4189 to 4192, series of normal preparation of joints and muscles; purchased. Specimen 4162, dissection of arm, forearm, and hand. Contributor, Dr. Edmond Souchon, New Orleans, La.

Miscellaneous.—Specimen 4179, a prosthetic appliance made by Dr. J. P. Michaels, dentist, Paris, France, to replace excised portion of humerus. Contributed by Dr. E. A. Bogue, New York City. Specimen 4178, Sims's duckbill speculum, presented by Dr. Sims to Prof. Alonzo B. Palmer, of University of Michigan, by him to the father of Maj. W. J. L. Lyster, Medical Corps, United States Army, who gave it to the museum. Specimens 4154 to 4177, series of first-aid packages, missiles, etc., from the European war. Contributor, Maj. J. H. Ford, Medical Corps, United States Army.

DENTAL AND ORAL DISEASES.

TABLE No. 47.—*Dental and oral diseases, year 1915, officers and enlisted men.*

	Cases admitted to treatment.		Operations performed.	
	Number.	Ratio.	Number.	Ratio.
United States (continental) exclusive of Alaska	72,747	1,089.21	88,663	1,327.51
Philippine Department	17,777	987.34	18,539	1,029.66
Hawaiian Department	14,442	1,627.08	15,198	1,712.26
Canal Zone, Panama	6,516	1,103.85	7,603	1,287.99
China	1,244	902.76	1,019	739.48
Alaska	798	1,013.98	832	1,057.18
Total	113,524	1,115.85	131,854	1,296.02

DENTAL CARIES—NUMBER OF TEETH TREATED.

	White troops.		Colored troops.		Philippine Scouts.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States (continental) excluding Alaska	41,043	637.81	740	303.40	....	....	41,783	625.60
Philippine Department	7,919	709.65	667	497.39	2,117	384.56	10,703	594.45
Hawaiian Department	7,510	1,070.87	1,841	988.19	....	....	9,351	1,053.52
Canal Zone, Panama	3,669	621.55	....	....	....	....	3,669	621.55
China	764	554.43	....	....	....	....	764	554.43
Alaska	592	752.22	....	....	....	....	592	752.22
Total	61,497	678.85	3,248	575.58	2,117	384.56	66,862	657.20

While the tabulation above given does not portray the character of the work performed, which has been varied, yet it indicates either that the dental work of the past years has placed the teeth of those treated in such condition as not to warrant treatment this year, or that the condition of the teeth of new recruits are closely watched with a view to eliminating those not meeting the requirement in this respect. It is to be noted that the troops serving in the Canal Zone have next to the highest admission rate for dental treatment, the Hawaiian Department leading.

AMERICAN TROOPS.

The movement of recruits is shown in Table No. 48. There were 37,993 examined by medical officers, as compared with 57,244 for the year 1914. Of each 1,000 examined, 125.84 were rejected and 21.08 declined enlistment, as compared with 106.60 and 24.46, respectively, for 1914. Of each 1,000 examined by medical officers, 853.08 were accepted, as compared with 868.94 for 1914. Of the number examined and enlisted, 494.91 per 1,000 were original enlistments and 358.17 reenlistments, as compared with 502.62 and 366.32 for 1914.

TABLE No. 48.—*Movement of recruits, white and colored, 1915.*

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Examined by medical officers	35,533	1,000.00	2,460	1,000.00	37,993	1,000.00
Accepted by medical officers	30,271	851.91	2,140	869.92	32,411	853.08
By first enlistment	17,756	499.70	1,047	425.61	18,803	494.91
By all other enlistments	12,515	352.21	1,093	444.31	13,608	358.17
Rejected by medical officers	4,496	126.53	285	115.85	4,781	125.84
Declined	766	21.56	35	14.23	801	21.08

TABLE No. 49.—*Nativities of accepted recruits, white and colored, year 1915.*

	Accepted recruits, 1915.			
	Total accepted.		Accepted first enlistment.	
	Number.	Ratio per 1,000 of total accepted.	Number.	Ratio per 1,000 of total accepted.
United States:				
White	26,009	802.47	15,408	819.44
Colored	2,140	66.02	1,047	55.68
Total native born	28,149	868.50	16,455	875.13
Russia	863	26.63	582	30.95
Germany	686	21.17	272	14.46
Austria	642	19.81	426	22.65
reland	483	14.90	179	9.52
taly	229	7.07	170	9.04
England	216	6.66	85	4.52
Norway and Sweden	193	5.95	90	4.79
Hungary	175	5.40	102	5.42
Canada	170	5.25	67	3.56
Denmark	157	4.84	107	5.69
Switzerland	62	1.91	27	1.44
Scotland	48	1.48	21	1.12
Holland	47	1.45	26	1.38
Roumania	44	1.36	29	1.54
Turkey	43	1.33	31	1.65
Greece	41	1.26	32	1.70
France	28	.86	10	.53
West Indies	25	.77	14	.74
Belgium	21	.65	17	.90
Australia	14	.43	9	.48
outh America	14	.43	12	.64
pain	10	.31	6	.32
Others	51	1.57	34	1.81
Total foreign born	4,262	131.50	2,348	124.87
Grand total	32,411	1,000.00	18,803	1,000.00

TABLE No. 50.—*Ages of recruits, white and colored, and the proportion at each age, year 1915, per 1,000 accepted.*

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
18 years and under	1,836	60.65	62	28.97	1,898	58.56
19 years	1,375	45.42	66	30.84	1,441	44.46
20 years	824	27.22	42	19.63	866	26.72
21 years	5,275	174.26	248	115.89	5,523	170.41
22 years	3,440	113.64	254	118.69	3,694	113.97
23 years	2,039	67.36	188	87.85	2,227	68.71
24 years	2,464	81.40	212	99.07	2,676	82.56
25 years	2,088	68.98	162	75.70	2,250	69.42
26 years	1,451	47.93	119	55.61	1,570	48.44
27 years	1,314	43.41	120	56.08	1,434	44.24
28 years	1,155	38.16	95	44.39	1,250	38.57
29 years	969	32.01	76	35.51	1,045	32.24
30 years	824	27.22	81	37.85	905	27.92
31 years	690	22.80	64	29.91	754	23.26
32 years	627	20.71	48	22.43	675	20.83
33 years	523	17.28	43	20.09	566	17.46
34 years	467	15.43	33	15.42	500	15.43
35 years	455	15.03	42	19.63	497	15.33
36 years	369	12.19	43	20.09	412	12.71
37 years	306	10.11	23	10.75	329	10.15
38 years	269	8.89	17	7.94	286	8.82
39 years	271	8.95	16	7.48	287	8.86
40 years and over	1,240	40.96	86	40.19	1,326	40.91
Total	30,271	1,000.00	2,140	1,000.00	32,411	1,000.0

The proportion of accepted recruits, 24 years of age and under was 565.39 per 1,000 as compared with 544.78 in 1914. The greatest number was enlisted at 21 years of age, 5,275, and 3,440 at 22 years the two ages combined giving 284.38 per 1,000 of all enlistments i the year.

TABLE No. 51.—*Relation of height to age.*

ABSOLUTE NUMBERS—WHITE RECRUITS, 1915.

Height.	Age.									Total
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
5 feet 1 inch and under						1			3	
5 feet 2 inches				1	1				8	
5 feet 3 inches	14	11	6	26	17	9	16	15	65	1
5 feet 4 inches	115	98	45	270	196	132	133	109	601	1,6
5 feet 5 inches	268	180	100	492	349	207	251	196	1,125	3,1
5 feet 6 inches	304	242	129	721	470	282	349	293	1,611	4,4
5 feet 7 inches	351	244	164	898	545	304	373	337	1,852	5,0
5 feet 8 inches	287	225	139	961	610	393	434	328	1,798	5,1
5 feet 9 inches	238	164	92	729	486	252	355	310	1,502	4,1
5 feet 10 inches	131	120	72	551	371	214	258	223	1,057	2,9
5 feet 11 inches	63	58	32	331	196	128	147	130	592	1,6
6 feet	47	20	26	203	130	74	86	96	477	1,1
6 feet 1 inch	14	7	10	57	48	30	42	35	147	3
6 feet 2 inches and over	4	6	9	35	21	13	20	16	92	2
Total	1,836	1,375	824	5,275	3,440	2,039	2,464	2,088	10,930	30,

TABLE No. 51.—*Relation of height to age*—Continued.

PROPORTIONAL NUMBERS—WHITE RECRUITS, 1915.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
feet 1 inch and under						0.49			0.27	0 13
feet 2 inches				0.19	0.29				.73	.33
feet 3 inches	7.63	8.00	7.28	4.93	4.94	4.41	6.49	7.18	5.97	5.91
feet 4 inches	62.64	71.27	54.61	51.18	56.98	64.74	53.98	52.20	54.99	56.13
feet 5 inches	145.97	130.91	121.36	93.27	101.45	101.52	101.87	93.87	102.93	104.65
feet 6 inches	165.58	176.00	156.55	136.68	136.63	138.30	141.64	140.33	147.36	145.39
feet 7 inches	191.18	177.46	199.03	170.24	158.43	149.09	151.38	161.40	169.47	167.42
feet 8 inches	156.32	163.64	168.70	182.18	177.33	192.74	176.14	157.09	164.75	170.96
feet 9 inches	129.63	119.27	111.65	138.20	141.28	123.59	144.07	148.47	137.42	136.37
feet 10 inches	71.35	87.27	87.38	104.47	107.85	104.95	104.71	106.80	96.71	99.00
feet 11 inches	34.31	42.18	38.84	62.71	56.98	62.78	59.66	62.26	54.16	55.40
feet	25.69	14.55	31.55	38.48	37.79	36.29	34.90	45.98	43.64	38.29
feet 1 inch	7.63	5.09	12.14	10.81	13.95	14.71	17.05	16.76	13.45	12.88
feet 2 inches and over	2.18	4.36	10.92	6.63	6.10	6.38	8.12	7.66	8.42	7.14
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

TABLE No. 52.—*Relation of height to age.*

ABSOLUTE NUMBERS—COLORED RECRUITS, 1915.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
feet 2 inches					1				1	2
feet 3 inches						1	1		3	5
feet 4 inches	4	6	1	9	14	12	12	12	53	123
eet 5 inches	8	9	6	33	30	17	22	22	101	248
eet 6 inches	15	11	14	41	43	32	36	28	145	365
eet 7 inches	12	14	9	45	44	35	27	29	164	379
eet 8 inches	7	9	7	47	46	39	45	28	146	374
eet 9 inches	9	10	3	29	27	19	24	13	118	252
eet 10 inches	5	5	1	22	27	17	18	13	83	191
eet 11 inches	1	1	1	15	10	10	9	7	55	109
eet	1	1		5	10	5	8	7	30	67
eet 1 inch				1	1		7	3	6	18
feet 2 inches and over				1	1	1	3		1	7
Total	62	66	42	248	254	188	212	162	906	2,140

PROPORTIONAL NUMBERS—COLORED RECRUITS, 1915.

eet 2 inches					3.94				1.10	0.93
eet 3 inches						5.32	4.72		3.31	2.34
et 4 inches	64.52	90.91	23.81	36.29	55.12	63.83	56.60	74.07	58.50	57.48
et 5 inches	129.03	136.36	142.86	133.06	118.11	90.42	103.77	135.80	111.48	115.88
et 6 inches	241.94	166.67	333.33	165.33	169.29	170.21	169.81	172.84	160.04	170.56
et 7 inches	193.55	212.12	214.29	181.46	173.24	186.17	127.35	179.01	181.02	177.10
et 8 inches	112.91	136.36	166.67	189.52	181.10	207.45	212.26	172.84	161.15	174.77
et 9 inches	145.16	151.52	71.43	116.94	106.30	101.05	113.20	80.24	130.24	117.76
et 10 inches	80.65	75.76	23.81	88.71	106.30	90.42	84.91	80.24	91.61	89.25
et 11 inches	16.13	15.15	23.81	60.49	39.37	53.19	42.45	43.21	60.70	50.94
et	16.13	15.15		20.16	39.37	26.60	37.74	43.21	33.11	31.31
et 1 inch				4.03	3.94		33.02	18.52	6.62	8.41
eet 2 inches and ver				4.03	3.94	5.32	14.15		1.10	3.27
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

From a comparison of the above tables it will be noted that 52.00 per cent of the white recruits were 5 feet 8 inches or over, and 0.64 per cent were under the minimum height, as compared with 49.44 and 1.25, respectively, for the year 1914.

For colored recruits 47.57 were 5 feet 8 inches or over and 6.07 per cent were under the minimum height as compared with 45.85 and 0.98 per cent last year.

The average height for recruits was 5 feet 7.62 inches, as compared with 5 feet 7.56 inches for last year.

TABLE NO. 53.—*Relation of weight to age.*

ABSOLUTE NUMBERS—WHITE RECRUITS, 1915.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
119 pounds and under	12	7	8	18	15	13	16	14	95	1
120 to 124 pounds	238	171	73	298	178	102	107	79	378	1,6
125 to 129 pounds	354	231	128	607	328	171	216	169	736	2,9
130 to 134 pounds	339	263	130	706	443	260	264	203	1,021	3,6
135 to 139 pounds	272	252	144	844	477	310	323	268	1,311	4,2
140 to 144 pounds	227	156	107	815	529	293	349	297	1,234	4,0
145 to 149 pounds	174	107	65	648	469	269	345	278	1,287	3,6
150 to 154 pounds	99	80	61	494	347	217	246	249	1,145	2,9
155 to 159 pounds	56	41	49	325	252	152	206	177	894	2,1
160 to 164 pounds	31	26	24	229	166	95	143	101	763	1,5
165 to 169 pounds	22	18	15	127	93	70	93	96	529	1,0
170 to 174 pounds	7	8	9	84	55	35	54	63	415	7
175 to 179 pounds	....	7	7	33	41	17	49	38	294	4
180 pounds and over	5	8	4	47	47	35	53	56	828	1,0
Total	1,836	1,375	824	5,275	3,440	2,039	2,464	2,088	10,930	30,2

PROPORTIONAL NUMBERS—WHITE RECRUITS, 1915.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
119 and under	6.54	5.09	9.71	3.41	4.36	6.38	6.49	6.70	8.69	6.
120 to 124 pounds	129.63	124.36	88.59	56.49	51.74	50.02	43.43	37.83	34.58	53.
125 to 129 pounds	192.80	168.00	155.34	115.07	95.35	83.86	87.66	80.94	67.34	97.
130 to 134 pounds	184.64	191.27	157.77	133.84	128.78	127.51	107.14	97.22	93.42	119.
135 to 139 pounds	148.15	183.28	174.75	160.00	138.66	152.02	131.09	128.35	119.95	138.
140 to 144 pounds	123.64	113.46	129.85	154.50	153.78	143.70	141.64	142.24	112.90	132.
145 to 149 pounds	94.77	77.82	78.88	122.84	136.34	131.93	140.02	133.14	117.75	120.
150 to 154 pounds	53.92	58.18	74.03	93.65	100.87	106.43	99.84	119.25	104.76	97.
155 to 159 pounds	30.50	29.82	59.47	61.61	73.26	74.55	83.60	84.76	81.80	71.
160 to 164 pounds	16.88	18.91	29.13	43.41	48.26	46.59	58.04	48.37	69.81	52
165 to 169 pounds	11.98	13.09	18.20	24.08	27.04	34.33	37.74	45.97	48.40	35
170 to 174 pounds	3.81	5.82	10.92	15.92	15.99	17.17	21.92	30.17	37.97	24
175 to 179 pounds	....	5.09	8.50	6.26	11.92	8.34	19.89	18.20	26.90	16
180 pounds and over	2.72	5.82	4.85	8.91	13.66	17.17	21.51	26.82	75.76	35
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000

TABLE No. 54.—*Relation of weight to age.*

ABSOLUTE NUMBER—COLORED RECRUITS, 1915.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
9 pounds and under	....	....	....	....	....	....	....	....	2	2
0 to 124 pounds....	6	7	4	5	8	2	9	6	17	64
5 to 129 pounds....	7	13	4	23	22	13	6	7	43	138
0 to 134 pounds....	12	9	8	38	25	14	21	16	71	214
5 to 139 pounds....	11	9	7	36	32	23	23	14	100	255
0 to 144 pounds....	12	5	7	38	45	35	37	23	125	327
5 to 149 pounds....	5	6	4	37	31	26	31	25	108	273
0 to 154 pounds....	5	10	4	20	26	28	26	23	126	268
5 to 159 pounds....	2	5	2	17	21	17	20	19	68	171
0 to 164 pounds....	2	1	2	13	18	12	9	9	77	143
5 to 169 pounds....	....	....	....	5	12	6	8	13	52	96
0 to 174 pounds....	....	....	....	9	9	8	6	2	31	65
5 to 179 pounds....	....	1	....	3	1	3	6	3	29	46
0 pounds and over.	....	....	....	4	4	1	10	2	57	78
Total..........	62	66	42	248	254	188	212	162	906	2,140

PROPORTIONAL NUMBERS—COLORED RECRUITS, 1915.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
pounds and under	....	....	....	....	....	....	....	....	2.21	0.93
to 124 pounds....	96.77	106.06	95.24	20.16	31.50	10.64	42.45	37.04	18.76	29.91
to 129 pounds....	112.91	196.97	95.24	92.74	86.61	69.15	28.30	43.21	47.46	64.49
to 134 pounds....	193.55	136.36	190.48	153.23	98.42	74.47	99.06	98.76	78.36	100.00
to 139 pounds....	177.42	136.36	166.67	145.16	125.98	122.34	108.49	86.42	110.37	119.15
to 144 pounds....	193.55	75.76	166.67	153.23	177.17	186.17	174.53	141.97	137.97	152.80
to 149 pounds....	80.65	90.91	95.24	149.20	122.05	138.30	146.23	154.32	119.20	127.57
to 154 pounds....	80.65	151.52	95.24	80.65	102.36	148.94	122.64	141.97	139.07	125.23
to 159 pounds....	32.26	75.76	47.62	68.55	82.68	90.42	94.34	117.28	75.05	79.91
to 164 pounds....	32.26	15.15	47.62	52.42	70.87	63.83	42.45	55.56	84.99	66.82
to 169 pounds....	....	....	....	20.16	47.24	31.91	37.74	80.24	57.39	44.86
to 174 pounds....	....	....	....	36.29	35.43	42.55	28.30	12.35	34.22	30.37
to 179 pounds....	....	15.15	....	12.10	3.94	15.96	28.30	18.52	32.01	21.50
pounds and over.	....	....	....	16.13	15.75	5.32	47.17	12.35	62.91	36.45
Total..........	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The average weight of all recruits was 138.56; of the white troops .28 per cent were 135 pounds or over, and 0.65 per cent weighed ss than the minimum, 120 pounds, as compared with 57.74 and 30 for 1914.

Of the colored troops 70.46 per cent weighed 135 pounds or over, hile but .09 per cent weighed less than the minimum, 120 pounds, compared with 66.55 and 1.09 for 1914.

TABLE No. 55.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS—WHITE RECRUITS, 1915.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
30 inches and under.	162	82	39	200	100	40	48	31	150	852
31 inches	407	259	144	621	350	186	205	135	606	2,913
32 inches	572	461	216	1,339	776	437	427	375	1,620	6,223
33 inches	414	332	224	1,430	932	533	663	526	2,199	7,253
34 inches	199	156	109	949	698	465	498	448	2,225	5,747
35 inches	59	59	58	475	357	229	330	290	1,605	3,462
36 inches	18	22	27	197	143	106	186	175	1,101	1,975
37 inches	4	4	5	51	59	30	60	63	585	861
38 inches	1	....	2	11	20	8	26	31	379	478
39 inches and over	....	....	....	2	5	5	21	14	460	507
Total	1,836	1,375	824	5,275	3,440	2,039	2,464	2,088	10,930	30,271

PROPORTIONAL NUMBERS—WHITE RECRUITS, 1915.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under.	88.23	59.64	47.33	37.91	29.07	19.62	19.48	14.85	13.72	28.14
31 inches	221.68	188.36	174.76	117.72	101.74	91.22	83.20	64.65	55.44	96.23
32 inches	311.55	335.27	262.14	253.84	225.58	214.32	173.30	179.60	148.22	205.58
33 inches	225.49	241.46	271.84	271.09	270.93	261.40	269.07	251.92	201.19	239.60
34 inches	108.39	113.45	132.28	179.90	202.91	228.05	202.11	214.56	203.57	189.85
35 inches	32.14	42.91	70.39	90.05	103.78	112.31	133.93	138.89	146.84	114.37
36 inches	9.80	16.00	32.77	37.34	41.57	51.99	75.49	83.81	100.73	65.24
37 inches	2.18	2.91	6.07	9.67	17.15	14.71	24.35	30.17	53.52	28.44
38 inches	.54	....	2.43	2.09	5.81	3.92	10.55	14.85	34.68	15.79
39 inches and over	....	....	....	.38	1.45	2.45	8.52	6.70	42.09	16.75
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

TABLE No. 56.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS—COLORED RECRUITS, 1915.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
30 inches and under.	6	5	1	7	10	5	6	5	26	71
31 inches	13	12	4	34	33	11	16	7	63	19
32 inches	18	26	16	72	57	42	47	36	168	48
33 inches	14	16	11	53	65	53	54	36	169	47
34 inches	6	5	6	56	57	12	41	46	199	45
35 inches	4	1	3	15	23	22	26	19	115	[illegible]
36 inches	....	1	....	8	8	11	13	8	92	14
37 inches	1	....	....	3	1	2	5	4	35	5
38 inches	....	....	1	....	....	....	2	1	22	2
39 inches and over	....	....	....	....	....	....	2	....	17	1
Total	62	66	42	248	254	188	212	162	906	2,14

PROPORTIONAL NUMBERS—COLORED RECRUITS, 1915.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under.	96.77	75.76	23.81	28.23	39.37	26.60	28.30	30.86	28.70	33.1
31 inches	209.68	181.82	95.24	137.10	129.92	58.51	75.47	43.21	69.54	90.1
32 inches	290.32	393.94	380.95	290.33	224.40	223.40	221.70	222.22	185.43	225.
33 inches	225.81	242.42	261.90	213.71	255.91	281.90	254.72	222.22	186.53	220.
34 inches	96.77	75.76	142.86	225.81	224.40	223.40	193.40	283.95	219.65	214.
35 inches	64.52	15.15	71.43	60.49	90.55	117.02	122.64	117.28	126.93	106.
36 inches	....	15.15	....	32.26	31.50	58.51	61.33	49.38	101.55	65.
37 inches	16.13	....	....	12.10	3.91	10.64	23.58	24.69	38 63	23.
38 inches	....	....	23.81	....	....	....	9.43	6.17	24.28	12.
39 inches and over	....	....	....	....	....	....	9.43	....	18.76	8.
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.

The chest measurements of 43.04 per cent of the white recruits was 34 inches and over, and 2.81 per cent were 30 inches and under, as compared with 40.94 and 8.82 for 1914.

The chest measurements for colored recruits show 21.73 per cent were 34 inches and over, and 3.32 per cent were 30 inches and under, as compared with 39.30 and 8.02, respectively, for 1914.

TABLE No. 57.—*Causes of rejection, by medical officers of the Army, of candidates examined for enlistment, 1915.*

Causes of rejection.	Total.		White.						Colored.	
			Native born.		Foreign born.		Total.			
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Venereal diseases	623	130.31	461	123.06	44	58.67	505	112.32	118	414.04
Heart disease	375	78.44	310	82.75	46	61.33	356	79.18	19	66.67
Diseases of the ear, including defects of hearing	349	73.00	297	79.28	38	50.67	335	74.51	14	49.12
Diseases of the eye, including defects of vision	280	58.57	239	63.80	36	48.00	275	61.17	5	17.54
Flat feet	230	48.11	187	49.92	33	44.00	220	48.93	10	35.09
Alcoholism	197	41.20	179	47.78	17	22.67	196	43.59	1	3.51
Diseases of the organs of locomotion, except spinal curvature	184	38.49	150	40.04	24	32.00	174	38.70	10	35.09
Hernia	139	29.07	118	31.50	14	18.67	132	29.36	7	24.56
Diseases of the skin	116	24.26	92	24.56	18	24.00	110	24.47	6	21.05
Under weight	115	24.05	88	23.49	21	28.00	109	24.24	6	21.05
Diseases of the respiratory system	104	21.75	79	21.09	23	30.67	102	22.69	2	7.02
Defective teeth	99	20.71	83	22.16	12	16.00	95	21.13	4	14.04
Weakness of mind	97	20.29	64	17.08	28	37.33	92	20.46	5	17.54
efects of development	88	18.41	79	21.09	6	8.00	85	18.91	3	10.53
iseases of the genito-urinary system, nonvenereal	83	17.36	74	19.75	7	9.33	81	18.02	2	7.02
aricose veins	60	12.55	45	12.01	12	16.00	57	12.68	3	10.53
iseases of the nervous system, except as shown in detail	59	12.34	57	15.22	2	2.67	59	13.12	......	......
eneral diseases, except as shown in detail	55	11.50	50	13.35	5	6.67	55	12.23	......	......
uberculosis	51	10.67	45	12.01	3	4.00	48	10.68	3	10.53
aricocele	32	6.69	28	7.47	2	2.67	30	6.67	2	7.02
hest development insufficient	30	6.27	25	6.67	5	6.67	30	6.67	......	......
iseases of the digestive system, except as shown in detail	29	6.07	28	7.47	1	1.33	29	6.45	......	......
hysical debility	26	5.40	24	6.41	1	1.33	25	5.56	1	3.51
urvature of the spine	24	5.02	20	5.34	4	5.33	24	5.34	......	......
ver weight and obesity	21	4.39	17	4.54	1	1.33	18	4.00	3	10.53
emorrhoids	15	3.14	15	4.00	......	......	15	3.34	......	......
nder height	14	2.93	12	3.20	1	1.33	13	2.89	1	3.51
seases of the circulatory system, except as shown in detail	5	1.05	5	1.33	......	......	5	1.11	......	......
juries	138	28.86	117	31.23	11	14.67	128	28.47	10	35.09
Rejected for causes physical and mental	3,638	760.93	2,988	797.65	415	553.33	3,403	756.90	235	824.56
ejected for causes not physical	1,143	239.07	758	202.35	335	446.67	1,093	243.10	50	175.44
Total rejected	4,781	1,000.00	3,746	1,000.00	750	1,000.00	4,496	1,000.00	285	1,000.00

Venereal diseases caused the greatest number of rejections this ear, as in 1914, 1912, and 1911. It occupied only third place in 913. This cause of rejection for whites gave a rate of 130.31 per 000, and for colored, 414.04, as compared with 107.92 and 353.25, spectively, in 1914.

TABLE No. 58.—*Principal occupations of recruits, first enlistment, 1915.*

Occupation.	Number in each case.		
	Total.	White.	Colored.
Laborers	5,865	5,294	571
Farmers	2,548	2,471	77
Clerks	1,285	1,280	5
Drivers	913	871	42
Machinists	575	567	8
Carpenters	431	417	14
Miners	389	372	17
Chauffeurs	383	353	30
Cooks	369	317	52
Electricians	360	356	4
Painters	352	349	3
Firemen	349	339	10
Plumbers	253	251	2
Mechanics	242	240	2
Musicians	236	224	12
Salesmen	234	234	....
Printers	233	231	2
Barbers	213	202	11
Tailors	209	193	16
Waiters	207	166	41
Bakers	188	185	3
Metal workers	177	177	....
Engineers	170	168	2
Telegraphers	146	146	....
Railroad hands	145	138	7
Blacksmiths	144	138	6
Sailors	136	124	12
Shoemakers	132	126	6
Butchers	117	117	....
Porters	96	35	61
Students	92	91	1
Weavers	86	86	....
Millworkers	77	77	....
Linemen	74	74	....
Masons	71	67	4
Tinners	68	67	1
Molders	64	61	3
Druggists	64	63	1
Lumbermen	63	59	4
Nurses	56	56	....
Boiler makers	50	49	1
Jewelers	42	42	....
Civil engineers and surveyors	42	42	....
Stenographers	37	37	....
Motormen	37	37	....
Teachers	36	35	1
Draftsmen	34	34	....
Leather workers	31	31	....
Paper workers	28	28	....
Plasterers	27	23	4
Agents	26	26	....
Glass workers	25	25	....
Cement workers	22	21	1
Inspectors	21	20	1
Packers	19	19	....
Photographers	18	17	1
Coopers	18	18	....
Dairymen	18	18	....
Conductors	17	17	....
Florists	17	17	....
Moving-picture operators	17	17	....
Tobacco workers	16	16	....
Merchants	16	16	....
Laundrymen	15	15	....
Foremen	15	15	....
Oilers	15	15	....
Gardeners	14	14	....
Upholsterers	13	13	....
Broom makers	13	13	....
Hatters	12	12	....
Roofers	12	12	....
Bridge workers	12	12	....
Confectioners	11	11	....
Actors	11	10	1
Box makers	11	11	....
Designers	10	10	....
Watchmen	10	10	....
Core makers	9	9	....
Rubber workers	8	8	....
Fishermen	8	7	1
Undertakers	8	7	1
Knitters	6	6	....
Dentists	6	6	....
Lawyers	6	6	....
Cranemen	5	5	....
Wheelwrights	5	5	....
Chemists	5	5	....
Bartenders	4	4	....
Locksmiths	4	4	....
Furriers	3	3	....
Aviators	3	3	....
Lithographers	3	3	....
Button makers	2	2	....
Dyers	2	2	....
Embroiderers	1	1	....
Miscellaneous	115	110	5
Total	18,803	17,756	1,047

PHILLIPINE SCOUTS.

The proportion of Filipinos accepted to all of those examined by medical officers in the year 1915 was 80.46 per cent, as compared with 90.88 in 1914. The total number examined was 1,090 in 1915, and 3,521 in 1914.

TABLE No. 59.—*Examination of Philippine applicants for enlistment, year 1915.*

	Number.	Ratio per 1,000 examined.
Examined by medical officers	1,090	1,000.00
Accepted by medical officers	877	804.59
By first enlistment	354	324.77
Other enlistments	523	479.82
Rejected by medical officers	196	179.82
Declined	17	15.60

TABLE NO. 60.—*Philippine recruits (accepted).*

	Number.	Ratio.		Number.	Ratio.
18 years and under	21	23.95	31 years	38	43.33
19 years	5	5.70	32 years	41	46.75
20 years	11	12.54	33 years	27	30.79
21 years	140	159.64	34 years	22	25.09
22 years	69	78.68	35 years	17	19.38
23 years	48	54.73	36 years	8	9.12
24 years	92	104.90	37 years	7	7.98
25 years	53	60.44	38 years	11	12.54
26 years	28	31.93	39 years	7	7.98
27 years	57	65.00	40 years and over	18	20.52
28 years	67	76.40			
29 years	47	53.59	Total	877	1,000.00
30 years	43	49.03			

TABLE NO. 61.—*Philippine recruits—Relation of height to age.*

ABSOLUTE NUMBERS, 1915.

Height.	Age.									
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
4 feet 11 inches and under				3		1	2	1	2	9
5 feet	3			10	1	2	2	1	17	36
5 feet 1 inch	1		4	18	8	4	8	1	26	70
5 feet 2 inches	3	1		30	12	8	15	3	51	123
5 feet 3 inches	5	2	2	22	11	7	19	10	84	162
5 feet 4 inches	4	1	1	16	12	9	17	9	93	162
5 feet 5 inches	2		2	23	5	3	11	7	59	112
5 feet 6 inches	1	1	1	7	6	7	8	13	46	90
5 feet 7 inches	1		1	5	7	4	5	4	25	52
5 feet 8 inches				3	3	1	2	2	21	32
5 feet 9 inches				2	1	1	2	1	7	14
5 feet 10 inches	1				1	1		1	3	7
5 feet 11 inches and over				1	2		1		4	8
Total	21	5	11	140	69	48	92	53	438	877

PROPORTIONAL NUMBERS, 1915.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
4 feet 11 inches and under				21.43		20.83	21.74	18.87	4.57	10.26
5 feet	142.86			71.43	14.49	41.67	21.74	18.87	38.81	41.05
5 feet 1 inch	47.62		363.64	128.57	115.94	83.33	86.96	18.87	59.36	79.82
5 feet 2 inches	142.86	200.00		214.29	173.91	166.67	163.04	56.60	116.44	140.25
5 feet 3 inches	238.10	400.00	181.82	157.14	159.42	145.83	206.52	188.68	191.80	184.72
5 feet 4 inches	190.48	200.00	90.91	114.29	173.91	187.50	184.78	169.81	212.33	184.72
5 feet 5 inches	95.24		181.82	164.29	72.47	62.50	119.57	132.08	134.70	127.71
5 feet 6 inches	47.62	200.00	90.91	50.00	86.96	145.83	86.96	245.28	105.02	102.62
5 feet 7 inches	47.62		90.91	35.71	101.45	83.33	54.35	75.47	57.08	59.29
5 feet 8 inches				21.43	43.48	20.83	21.74	37.74	47.95	36.49
5 feet 9 inches				14.29	14.49	20.83	21.74	18.87	15.98	15.96
5 feet 10 inches	47.62				14.49	20.83		18.87	6.85	7.98
5 feet 11 inches and over				7.14	28.99		10.87		9.13	9.12
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

Of all recruits accepted, 45.61 per cent were below the minimum standard for American soldiers, 5 feet 4 inches, while only 6.95 per cent were above the average height of American recruits, 5 feet 7 inches.

TABLE No. 62.—*Philippine recruits—Relation of weight to age.*

ABSOLUTE NUMBERS, 1915.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
99 pounds and under	1	....	....	4	....	1	....	1	9	16
100 to 104 pounds....	3	....	2	27	7	3	9	6	29	86
105 to 109 pounds....	6	....	1	28	7	9	12	4	48	115
110 to 114 pounds....	4	2	4	24	21	12	21	6	65	159
115 to 119 pounds....	3	1	2	22	10	10	19	8	83	158
120 to 124 pounds....	1	2	....	16	7	3	12	6	63	110
125 to 129 pounds....	....	....	1	10	10	5	11	7	54	98
130 to 134 pounds....	2	....	....	5	4	1	6	6	36	60
135 to 139 pounds....	1	....	1	2	1	1	1	3	24	34
140 to 144 pounds....	....	....	....	1	2	2	1	3	13	22
145 to 149 pounds....	....	....	....	1	....	....	....	1	4	6
150 to 154 pounds....	....	....	....	....	....	1	....	2	3	6
155 to 159 pounds....	....	....	....	....	....	....	....	....	3	3
160 pounds and over.	....	....	....	....	....	....	....	....	4	4
Total.........	21	5	11	140	69	48	92	53	438	877

PROPORTIONAL NUMBERS, 1915.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
99 pounds and under	47.62	....	....	28.57	....	20.83	....	18.87	20.55	18.24
100 to 104 pounds....	142.86	....	181.82	192.86	101.45	62.50	97.83	113.21	66.21	98.06
105 to 109 pounds....	285.72	....	90.91	200.00	101.45	187.50	130.44	75.47	109.59	131.13
110 to 114 pounds....	190.48	400.00	363.64	171.43	304.35	250.00	228.26	113.21	148.40	181.30
115 to 119 pounds....	142.86	200.00	181.82	157.14	144.93	208.33	206.52	150.94	189.51	180.16
120 to 124 pounds....	47.62	400.00	....	114.29	101.45	62.50	130.44	113.21	143.84	125.43
125 to 129 pounds....	....	....	90.91	71.43	144.93	104.17	119.57	132.08	123.29	111.74
130 to 134 pounds....	95.24	....	....	35.71	57.97	20.83	65.22	113.21	82.19	68.42
135 to 139 pounds....	47.62	....	90.91	14.29	14.49	20.83	10.87	56.60	54.80	38.77
140 to 144 pounds....	....	....	....	7.14	28.99	41.67	10.87	56.60	29.68	25.09
145 to 149 pounds....	....	....	....	7.14	....	....	....	18.87	9.13	6.84
150 to 154 pounds....	....	....	....	....	....	20.83	....	37.74	6.85	6.84
155 to 159 pounds....	....	....	....	....	....	....	....	....	6.85	3.42
160 pounds and over.	....	....	....	....	....	....	....	....	9.13	4.56
Total.........	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The weight of 60.89 per cent of all recruits is less than 120 pounds, the minimum standard for American recruits. Only 4.67 per cent were of the avarage weight or over for American recruits.

TABLE No. 63.—*Philippine recruits—Relation of chest measurement to age.*

ABSOLUTE NUMBERS, 1915.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
27 inches............	....	....	....	1	....	1	....	....	....	[illegible]
28 inches............	....	....	....	3	1	....	1	1	3	[illegible]
29 inches............	5	....	1	11	3	2	4	5	18	[illegible]
30 inches............	5	....	1	28	8	5	15	8	58	12
31 inches............	5	4	5	41	19	18	28	7	98	22
32 inches............	4	1	2	35	24	6	27	17	117	23
33 inches............	2	....	2	17	10	9	12	4	87	14
34 inches............	....	....	....	1	3	5	4	9	34	5
35 inches............	....	....	....	3	1	1	1	2	12	2
36 inches and over...	....	....	....	....	....	1	....	....	11	1
Total.........	21	5	11	140	69	48	92	53	438	87

TABLE NO. 63.—*Philippine recruits—Relation of chest measurement to age*—Continued.

PROPORTIONAL NUMBERS, 1915.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
27 inches				7.14		20.83				2.28
28 inches				21.43	14.49		10.87	18.87	6.85	10.26
29 inches	238.10		90.91	78.57	43.48	41.67	43.48	94.34	41.10	55.87
30 inches	238.10		90.91	200.00	115.94	104.17	163.04	150.94	132.42	145.96
31 inches	238.10	800.00	454.55	292.86	275.36	375.00	304.35	132.08	223.74	256.56
32 inches	190.48	200.00	181.82	250.00	347.83	125.00	293.48	320.75	267.13	265.68
33 inches	95.24		181.82	121.43	144.93	187.50	130.44	75.47	198.63	163.06
34 inches				7.14	43.48	104.17	43.48	169.81	77.63	63.86
35 inches				21.43	14.49	20.83	10.87	37.74	27.40	22.81
36 inches and over						20.83			25.11	13.68
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The minimum standard chest measurement for American recruits is 32 inches at expiration. Forty-seven and nine hundredths of 1 per cent of all Philippine recruits have a chest measurement below the standard.

Table No. 64 gives the cause of rejection among 1,090 Filipino applicants for enlistment, examined by medical officers during the year.

TABLE NO. 64.—*Causes of rejection of Philippine applicants for enlistment, 1915.*

Causes of rejection.	Total.		Causes of rejection.	Total.	
	Number.	Ratio per 1,000 rejected for all causes.		Number.	Ratio per 1,000 rejected for all causes.
Heart disease	41	209.18	Hernia	3	15.31
Underweight	22	112.25	Underheight	3	15.31
Diseases of the eye, including defects of vision	19	96.94	Diseases of the digestive system	2	10.20
Tuberculosis	17	86.74	Chest development insufficient	2	10.20
Genito-urinary system, nonvenereal	15	76.54	Flat feet	2	10.20
General diseases except as mentioned in detail	11	56.10	Varicose veins	1	5.10
Defective teeth	9	45.92	Defects of development except as shown in detail	1	5.10
Diseases of the ear including defects of hearing	8	40.82	Injuries	2	10.20
Diseases of the respiratory system	7	35.72	Rejected for causes physical and mental	177	903.06
Venereal diseases	4	20.41			
Diseases of the skin	4	20.41	Rejected for causes not physical	19	96.94
Diseases of the organs of locomotion	4	20.41	Total rejected	196	1,000.00

Heart disease caused 20.92 per cent of all rejections by medical officers; diseases of the eye, including defects of vision, 9.69 per cent; tuberculosis, 8.67 per cent, genito-urinary system, nonvenereal, 7.65 per cent, and general diseases, except as mentioned in detail, 5.61 per cent. Venereal disease, which last year caused 5.67 per cent of all rejections, in 1915 caused 2.04. Twenty-two applicants were rejected because of underweight, a total of 11.22 per cent of all rejections, while but 2, or 1.02 per cent, were found to have insufficient chest development.

PORTO RICAN TROOPS.

Ninety and three one-hundredths per cent of the recruits examined by medical officers, for the Porto Rican Regiment, were accepted, as compared with 91.44 per cent in 1914. Two hundred and seventy-one applicants were examined, and 244 accepted, of which number only 47 were first enlistments. Of the causes of rejection, 37.03 per cent were for underweight; 14.81 for venereal diseases, 7.47 for underheight, and 3.70 for insufficient chest development.

In height 51.64 per cent were 66 inches or under and only 6.56 per cent attained the height of 69 inches. Sixty-eight and eighty-five one hundredths were under the average height of American recruits; 38.52 per cent weighed less than 130 pounds, and 31, or 13.92 per cent, weighed over 150 pounds. Seventy-one and thirty-one one hundredths per cent had a chest measurement of 33 inches or under, and 10.06 had a chest measurement of 35 inches and over, as compared with 13.45 per cent last year.

Applicants.	Number.	Ratio per 1,000 examined.
Examined by medical officers	271	1,000.0
Accepted by medical officers	244	900.3
By first enlistment	47	173.4
Other enlistments	197	726.9
Rejected by medical officers	27	99.6
Declined	....	....

TABLE NO. 65.—*Causes of rejection of applicants for enlistment, Porto Rican regiment 1915.*

Causes of rejection.	Total.		Causes of rejection.	Total.	
	Number.	Ratio per 1,000 rejected for all causes.		Number.	Ratio per 1,000 rejected for all causes.
Underweight	10	370.37	Hernia	1	37.0
Venereal diseases	4	148.15	Chest development insufficient	1	37.0
Diseases of the eye	2	74.07	Defects of development, other	1	37.0
Defective teeth	2	74.07	Flat feet	1	37.0
Underheight	2	74.07			
Varicose veins	1	37.04			
Heart disease	1	37.04	Total rejected for physical disability	27	1,000.0
Tuberculosis	1	37.04			

FINANCIAL STATEMENT, 1916.[1]

Medical and Hospital Department, 1916.

Appropriated by act approved Mar. 4, 1915		$750,000.00
Appropriated by act approved Mar. 31, 1916		37,500.00
Refundments during the year		280.33
Total to be accounted for		787,780.33
Disbursed during the year:		
Expenses of medical supply depots	$836.87	
Medical and hospital supplies	429,836.17	
Medical attendance and medicines (except at recruiting stations)	10,880.57	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	4,719.81	
Pay of employees	148,850.73	
Hospital laundry	45,038.53	
Expressage	476.36	
Gas and electricity for laboratory apparatus	3,101.51	
Customs duties and internal revenue taxes on medical supplies	5,042.26	
Miscellaneous	86.64	
		648,869.45
Balances on hand June 30, 1916:		
In United States Treasury	68,779.47	
In transit from disbursing officers to the Treasury	1,748.09	
In hands of disbursing officers	68,383.32	
		138,910.88
Total accounted for		787,780.33

Medical and Hospital Department, 1915.

alances on hand July 1, 1915, act Apr. 27, 1914		131,500.02
efundments during the year		5.03
Total to be accounted for		131,505.05
isbursed during the year:		
Expenses of medical supply depots	$246.74	
Medical and hospital supplies	111,965.29	
Medical attendance and medicines (except at recruiting stations)	2,564.72	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	508.30	
Pay of employees	2,572.82	
Hospital laundry	6,189.43	
Expressage	9.33	
Gas and electricity for laboratory apparatus	400.32	
Miscellaneous	17.27	
		124,474.22
reasury transfers to "Medical and Hospital Department, 1916," to correct erroneous payments therefrom		265.43
lance on hand June 30, 1916, in United States Treasury		6,765.40
Total accounted for		131,505.05

The disbursements in this statement include settlements with public creditors made by the account-
officers of the Treasury and charged to these appropriations.

Medical and Hospital Department, 1914.

Balance on hand July 1, 1915, acts Mar. 2, 1913, and May 25, 1914		$6, 276. 86
Disbursed during the year:		
Medical and hospital supplies	$23. 78	
Medical attendance and medicines (except at recruiting stations)	21. 00	
Medical expenses of recruiting	8. 00	
		52. 78
Carried to surplus fund		6, 224. 08

Medical and Hospital Department, certified claims.

Appropriated by act approved Feb. 28, 1916	13. 60
Disbursed during the year	13. 6

Medical and Hospital Department, expired appropriations.

Refundment during the year	47. 9
Carried to surplus fund	47. 9

Replacing medical supplies, 1916–17.

[Act June 12, 1906, 34 Stats., 256.]

Amounts accruing to this fund during the year:		
On account of supplies transferred to other branches of the Government		71, 309. 8
On account of supplies sold		32, 296. 8
On account of collections for medical supplies lost or destroyed		526. 5
Treasury transfer from "Replacing medical supplies, 1915–16," to correct erroneous deposit		18. 6
Total to be accounted for		104, 151. 9
Disbursed during the year for medical and hospital supplies		6, 732. 9
Treasury settlement to reimburse officer for erroneous (duplicate) deposit		12. 7
Balances on hand June 30, 1916:		
In United States Treasury	$79, 139. 23	
In hands of disbursing officer	18, 267. 07	
		97, 406.
Total accounted for		104, 151.

Replacing medical supplies, 1915–16.

Balance on hand July 1, 1915		121, 618.
Amounts accruing to this fund during the year:		
On account of supplies transferred to other branches of the Government	$14, 324. 49	
On account of supplies sold	2, 662. 93	
On account of collections for medical supplies lost or destroyed	336. 13	
		17, 323.
Total to be accounted for		138, 942.
Disbursed during the year for medical and hospital supplies		39, 499.
Treasury transfer to "Replacing medical supplies, 1916–17," to correct erroneous deposit		18.
Treasury settlement to reimburse officer for erroneous (duplicate) deposit		10.
Balances on hand June 30, 1916:		
In United States Treasury	$48, 913. 35	
In hands of disbursing officer	50, 500. 38	
		99, 413.
Total accounted for		138, 942.

Replacing medical supplies, 1914–15.

Balance on hand July 1, 1915		$11,947.31
Amount accruing to this fund during the year on account of collections for medical supplies lost or destroyed		15.70
Total to be accounted for		11,963.01
Disbursed during the year for medical and hospital supplies		3,820.00
Balances on hand June 30, 1916:		
In United States Treasury	$30.93	
In hands of disbursing officer	8,112.08	
		8,143.01
Total accounted for		11,963.01

Replacing medical supplies, 1913–14.

alance on hand July 1, 1915	$219.52
arried to surplus fund	219.52

Hospital care, Canal Zone garrisons, 1916.

ppropriated by act approved Mar. 4, 1915		45,000.00
isbursed during the year		27,709.18
alances on hand June 30, 1916:		
In United States Treasury	$16,133.65	
In hands of disbursing officer	1,157.17	
		17,290.82

Hospital care, Canal Zone garrisons, 1915.

alance on hand July 1, 1915, act Mar. 4, 1915	45,000.00
isbursed during the year	31,162.32
lance on hand June 30, 1916, in United States Treasury	13,837.68

Library, Surgeon General's Office, 1916.

ppropriated by act approved Mar. 4, 1915		10,000.00
isbursed during the year		2,226.35
lances on hand June 30, 1916:		
In United States Treasury	$4,992.24	
In hands of disbursing officer	2,781.41	
		7,773.65

Library, Surgeon General's Office, 1915.

lance on hand July 1, 1915, act Apr. 27, 1914		6,270.08
sbursed during the year		3,854.55
lances on hand June 30, 1916:		
In United States Treasury	$948.75	
In hands of disbursing officer	1,466.78	
		2,415.53

Library, Surgeon General's Office, 1914.

lance on hand July 1, 1915, act Mar. 2, 1913	108.35
sbursed during the year	52.29
rried to surplus fund	56.06

Army Medical Museum, 1916.

Appropriated by act approved Mar. 4, 1915		$5,000.0
Disbursed during the year		2,776.1
Balances on hand June 30, 1916:		
In United States Treasury	$1,500.00	
In hands of disbursing officer	723.90	
		2,223.9

Army Medical Museum, 1915.

Balance on hand July 1, 1915, act Apr. 27, 1914		3,224.5
Disbursed during the year		763.8
Balances on hand June 30, 1916:		
In United States Treasury	$1,918.56	
In hands of disbursing officer	542.21	
		2,460.7

Army Medical Museum, 1914.

Balance on hand July 1, 1915, act Mar. 2, 1913	1,565.8
Carried to surplus fund	1,565.8

Artificial limbs, 1916.

Appropriated by act approved Mar. 3, 1915		95,000.
Disbursed during the year		79,674.7
Balances on hand June 30, 1916:		
In United States Treasury	$11,817.26	
In hands of disbursing officer	3,508.00	
		15,325.

Artificial limbs, 1915.

Balance on hand July 1, 1915, act Aug. 1, 1914	47,363.
Disbursed during the year	1,677.
Balance on hand June 30, 1916, in United States Treasury	45,686.

Artificial limbs, 1914.

Balance on hand July 1, 1915, act June 23, 1913	11,046.
Carried to surplus fund	11,046.

Trusses for disabled soldiers, 1916.

Appropriated by act approved Mar. 3, 1915		3,000.
Disbursed during the year		1,440.
Balances on hand June 30, 1916:		
In United States Treasury	$1,400.00	
In hands of disbursing officer	159.04	
		1,559.

Trusses for disabled soldiers, 1915.

Balance on hand July 1, 1915, act Aug. 1, 1914	1,886.
Disbursed during the year	177.
Balance on hand June 30, 1916, in United States Treasury	1,708.

Trusses for disabled soldiers, 1914.

Balance on hand July 1, 1915, act June 23, 1913	1,997.
Carried to surplus fund	1,997.

Appliances for disabled soldiers, 1916.

ppropriated by act approved Mar. 3, 1915		$1,500.00
isbursed during the year		802.24
lances on hand June 30, 1916:		
In United States Treasury	$500.00	
In hands of disbursing officer	197.76	
		697.76

Appliances for disabled soldiers, 1915.

lance on hand July 1, 1915, act Aug. 1, 1914	797.11
sbursed during the year	106.26
lance on hand June 30, 1916, in United States Treasury	690.85

Appliances for disabled soldiers, 1914.

lance on hand July 1, 1915, act June 23, 1913	1,090.01
rried to surplus fund	1,090.01

General summary of all appropriations.

lances on hand July 1, 1915	391,912.68
propriated	947,013.60
crued to replacing funds, act June 12, 1906 (34 Stats., 256)	121,472.61
fundments during the year	67.83
nsfers between appropriations, debits	284.05
Total to be accounted for	1,460,750.77
bursed during the year	975,886.39
nsfers between appropriations, credits	284.05
asury settlement on account of duplicate deposit	23.00
ried to surplus fund	22,247.66
lances on hand June 30, 1916	462,309.67
Total accounted for	1,460,750.77

VITAL STATISTICS.

The following tables show in detail most of the statistical data on which the statements in this report are based:

6. Surgical operations performed on American troops.

7. Numerical view of the effect of disease and injury on United States troops ving at home and abroad in the year 1915, compared with the corresponding data the year 1914, by races.

8. Admissions to sick report, discharges and deaths in the Army, with ratios per 00 of mean strength, in which all available data for the decade ending December 1914, are placed in comparison with the year 1915.

8½. Admissions to sick report, discharges, deaths, and noneffectiveness, with os per 1,000 of mean strength, for the Army; separately for officers, total enlisted luding American, Porto Rican, and Philippine troops), and grand total, year 5.

). Admissions to sick report, discharges, deaths, and noneffectiveness, with os per 1,000 of mean strength, for the Army; officers, total enlisted American ps, and grand total, year 1915.

). Admissions to sick report, discharges, deaths, and noneffectiveness, with os per 1,000 of mean strength, for the Army, American troops, total enlisted, and arately for white and colored.

)½. Admissions to sick report, discharges, deaths, and noneffectiveness, with os per 1,000 of mean strength, for the United States, continental (excluding Alaska), arately for officers and enlisted men, and the grand total.

71. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1915, United States, continental (excluding Alaska), total enlisted, white and colored: and separately for the white and colored troops (enlisted) serving therein.

71½. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the officers separately; total enlisted, including Philippine Scouts: and total officers and enlisted men, including Philippine Scouts, serving in the Philippine Islands, for the year 1915.

72. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for total American troops, enlisted men, white and colored; and separately for white and colored American enlisted men serving in the Philippine Islands, year 1915.

73. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops serving in Alaska, Panama Canal Zone, and China, officers and enlisted men, for the year 1915.

74. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops serving in Hawaii, 1915, separately for officers, enlisted men, white, colored, and total.

75. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops serving on Army transports, officers, and native troops serving in Porto Rico, and for the Philippine Scouts, for year 1915.

76. Admissions to sick report, discharges, deaths, and noneffectiveness expressed in ratios per 1,000 of mean strength, for American troops (enlisted men) serving on duty at home stations placed in comparison with the same data for those serving at distant stations, year 1915.

77. (Foreign table not used this year.)

78. (Foreign table not used this year.)

79. Showing the most important diseases, by departments, in the United States (continental, excluding Alaska), officers and enlisted men, year 1915.

80. Comparative figures, Army, enlisted American troops, 1911–1915.

81. Admissions and cases compared, 1904–1911, inclusive.

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915.*

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.
	EYE.										
Enucleation	Glaucoma	2	2					2			
	Phthisis bulbi	1	1					1			
	Uveitis	2	2					2			
	Rupture of sclera	1	1					1			
	Lacerated wound of eye	1	1					1			
	Penetrating wound of eye	1	1					1			
	Foreign body in eye (bullet).	1	1					1			
	Gunshot wound of head, involving eye.	1				1					
Suturing of globe	Laceration of globe	1	1								1
Suturing	Wound of sclera	1	1								1
Extraction 1 Combined extraction 1	Cataract, traumatic	2	1		1						2
Extraction	Cataract	2	2								2
Iridectomy	Cataract with adherent iris.	1	1								1
Keratotomy	Anterior synechia	1	1								1
Toti's operation 1 Dacryocystotomy 2	Dacryocystitis	3	3					1			2
Resection external rectus 1 Tenotomy internal rectus 1	Strabismus	2	2								2
Expression	Trachoma	3	3								3
Paracentesis	Ulcer of cornea	1		1			1				
Removal of granulative area	Granulating area, cornea	1	1								1

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
Farland's operation. 1	Pterygium	55	54	....	1	...	...	1	....	....	54	...
Reynolds operation. 26												
iapp's operation..... 1												
ansplantation........ 5												
cision.............. 6												
cision and suture.... 12												
hesions incised...... 1												
section.............. 1												
angulation.......... 1												
uterization.......... 1												
ision and drainage... 4	Chalazion	13	13	....	...	...	...	....	....	....	11	2
ision and curetment. 6												
cision............... 2												
ternal excision...... 1												
r tissue removed, wound utured.	Ptosis	1	1	....	...	...	1	....	....	....	.....	...
thotomy	Contraction external canthus.	1	1	....	...	...	...	....	....	....	1	...
ision and removal of air.	Dermoid cyst external canthus.	1	1	....	...	...	...	....	....	....	1	...
cision of sac	Sebaceous cyst of lid	5	5	....	...	...	...	....	....	....	5	...
traction	Foreign body in iris	1	1	....	...	...	...	....	....	....	1	...
	Foreign body in sclera	1	1	....	...	...	...	....	....	....	1	...
	Foreign body in cornea	16	16	....	...	...	...	....	....	....	15	1
traction piece of lead	Gunshot wound cornea	1	1	....	...	...	...	....	....	....	1	...
	EAR.											
stoidotomy.......... 8	Mastoiditis	11	11	....	...	...	1	9	....	....	.....	1
tial Schwartz operaon.......... 1												
lical operation...... 2												
lical operation	Mastoid abscess	1	.....	1	...	...	...	1	....	....	.....	...
etment	Sinus following mastoid operation.	2	2	....	...	...	...	1	....	....	.....	1
ision of tympanum.. 8	Otitis media	48	48	....	...	...	...	6	....	....	35	7
cke-Schwartz operaon.......... 1												
acentesis............ 39												
ision and drainage	Otitis externa	2	2	....	...	...	...	.....	....	....	.....	2
noval with snare	Polyp	1	1	....	...	...	...	1	....	....	.....	...
	NOSE.											
ian's operation...... 4	Frontal sinusitis	15	15	....	...	...	1	5	....	....	9	...
binectomy.......... 10												
phining and curetent.......... 1												
icture and drainage, anfield-Lee.......... 2	Maxillary sinusitis	8	8	....	...	...	...	4	....	....	4	...
icture and drainage, anfield-Ballinger.... 3												
ploratory puncture.. 1												
iration and drainage 1												
icture and drainage. 1												
inage through cket, first upper mor.......... 1	Maxillary empyema	9	9	....	...	...	...	2	....	....	7	...
binectomy.......... 5												
lical antrum operaion.......... 1												
ploratory puncture.. 2												
binectomy, perforation itrum Highmore.	Sinusitis, chronic, ethmoid	1	1	....	...	...	...	1	....	....	.....	...
binectomy with exenration ethmoid cells	Ethmoiditis, suppurative.	2	2	....	...	...	...	1	....	....	1	...
nteration sphenoid ius.	Empyema sphenoid sinus.	1	1	....	...	...	...	.....	....	....	1	...
um straightened... 5	Deviation and deflection of septum.	235	235	....	...	...	...	5	....	....	229	1
mucous resection.. 221												
inectomy.......... 1												
ection of spur....... 2												
ection of septum.... 6												
acture and resetting	Nasal deviation due to fracture.	1	1	....	...	...	...	.....	....	....	1	...

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	NOSE—continued.											
Turbinectomy	Nasal obstruction, with external deformity.	1	1								1	
Resection and reduction	Dislocation of septum	1	1				1					
Submucous excision	Ridge of septum	1	1								1	
Submucous resection	Thickening of septum	1	1								1	
Do	Chronic turgescent turbinates.	1	1					1				
Resection 1 Turbinectomy 3	Rhinitis hypertrophic	4	4								4	
Do 13 Partial resection 1 Removal with snare 1 Removal with scissors 1 Removal tips of turbinates 4 Electric cauterization 1 Linear cauterization 3	Hypertrophy of turbinates.	24	24								24	
Excision 11 Submucous resection 1	Nasal and septal spur	12	12								12	
Curetment 9 Adenectomy 20	Adenoids	29	29					24			5	
Removal with snare 9 Excision 15	Polypus	24	24								23	1
	MOUTH AND PHARYNX.											
Excision triangle of lip	Chronic ulceration lip, probably epitheliomatous.	1	1								1	
Do 1 Excision, plastic repair, and excision lymph nodes 1	Epithelioma lip	2	2					2				
Excision and suture	Varicosities lower lip	1	1								1	
Edges freshened and sutured.	Cleft palate	1	1					1				
Excision and cauterization of base.	Epithelioma, tongue	2	1	1				1	1			
Excision	Carcinoma	1	1					1				
Do	Fibroma inner side of cheek.	1	1								1	
Incision and drainage	Ranula	1	1								1	
Do	Cyst Wharton's duct	1	1									1
Do	Submaxillary abscess	2	2					2				
Do 3 Tracheotomy 1	Ludwig's angina	4	3			1		3				1
Incision and drainage	Abscess retropharyngeal	1	1								1	
Do 97 Tonsillectomy 10	Tonsillar and peritonsillar abscess.	107	107					2			48	5
Curetment	Abscess of pharynx	1	1					1				
Tonsillotomy 18 Tonsillectomy 219	Hypertrophy of tonsil	237	237					64			165	
Tonsillotomy 6 Tonsillectomy 148	Tonsillitis	154	154					29			125	
Excision	Hypertrophy of lingual tonsil.	1	1								1	
Amputation	Elongation of uvula	4	4								4	
Excision	Tumor of pharynx, tuberculous.	1	1								1	
Do 38 Curetment 4	Adenoids, pharyngeal	42	42				1	30			10	
Extirpation	Thyroglossal duct, remains of.	1	1					1				
	NECK AND THORAX.											
Epiglottidectomy	Tuberculosis of epiglottis	1	1								1	
Electric cauterization	Laryngitis, tuberculous	1	1								1	
Tonsillectomy	Laryngitis	1	1					1				
Excision	Papilloma vocal cords	2	2								2	

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	NECK AND THROAT—con.											
xcision right lobe 2 artial excision right lobe 1 hyroidectomy 2 njection of boiling water 1	Goitre (2 cystic)	6	4	2	...	...	...	2	...	...	4	...
xcision right lobe and isthmus 1 xcision right, and resection left lobe 1 igation superior thyroid artery 2 hyroidectomy 2 xcision left lobe, and ligation of left superior and inferior thyroid arteries 2	Exophthalmic goitre	8	6	2	...	...	...	6	...	...	2	...
horacotomy and drainage 6 horacotomy — Eastlander 1 statectomy 4 esection of rib and drainage 16 ecortication, partial, right lung 1	Empyema	28	26	2	...	...	2	17	1	...	7	1
horacotomy and drainage.	Abscess, acute, right lung.	1	...	...	...	1	...	...	...	...	1	...
esection eighth rib, post axillary line, with aspiration and drainage.	Abscess, tuberculous, left upper lobe.	1	...	1	...	...	...	1	...	...	...	...
horacotomy 1 racentesis 5 piration 6 section of rib 4	Pleurisy	16	16	...	...	...	...	4	...	...	12	...
eumolisis — Frederich's ubperiosteal (resection econd to tenth ribs, in-lusive).	Empyema chronic tuberculous.	1	...	...	...	1	...	1	...	...	...	...
strotomy—Senn's	Mediastinal tumor	1	1	...	...	...	...	1	...	...	...	...
oracoplasty and partial ecortication.	Sinus through lateral chest wall.	1	1	...	...	...	...	1	...	...	...	...
ision and drainage 1 parotomy exploraory 1	Gunshot wound, thorax	2	1	...	1	...	...	2	...	...	...	...
	ABDOMEN.											
stroenterostomy 3 parotomy, suture and rainage 2	Ulcer of stomach	5	5	...	...	...	...	5	...	...	...	...
stroenterostomy and ap-endectomy.	Ulcer of stomach, pyloric, hepatic cirrhosis, and appendicitis.	2	1	...	...	1	...	2	...	...	...	...
parotomy; stoma examned, and found patent.	Gastralgia severe, following operation for gastroenterostomy (old).	1	...	1	...	...	...	1	...	...	...	...
stroenterostomy 1 strojejunostomy poserior 4 parotomy exploraory 1	Ulcer of duodenum	6	6	...	...	...	...	5	1	...	...	...
parotomy 1 resection, transleural evacuation nd drainage 1 lening sinus to abess cavity, pleural oute 1 ision, evacuation, d drainage 9	Abscess of liver	12	12	...	...	...	...	12	...	...	...	...
lecystotomy	Cholangitis	1	1	...	...	...	...	1	...	...	...	...

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	ABDOMEN—continued.											
Cholecystectomy, with appendectomy 2 Cholecystotomy 2 Cholecystostomy 2	Cholecystitis	6	5			1		6				
Do	Cholecystitis and pericholecystitis, with adhesions.	1	1					1				
Cholecystectomy	Cholecyletitis, with adhesions after cholecystostomy.	1	1					1				
Cholelithotomy and cholecystostomy 1 Cholecystotomy 1 Cholelithotomy, cholecystostomy, and excision mucous membrane of gall bladder 1	Cholelithiasis	3	3					3				
Laparotomy	Hepatolithiasis	1	1					1				
Removal of stone and gall bladder.	Choledocholithiasis	1	1					1				
Cholelithotomy and removal of stone from common duct.	Biliary fistula	1	1					1				
Laparotomy 1 Aspiration peritoneal cavity 1	Cirrhosis of liver	2	2					2				
Laparotomy exploratory	Aneurism abdominal aorta	1	1					1				
Do	Polycythemia	1	1					1				
Spleenectomy	Pernicious anemia	1	1					1				
Laparotomy exploratory	Peritonitis tuberculous	2	2					2				
Paracentesis	Suspected abdominal tuberculosis.	1	1								1	
Talma-Morrison operation	Ascites tuberculous	1	1								1	
Resection ascending colon and ileum 1 Evacuation 1 Laparotomy 3	Peritonitis	5	4	1				5				
Division of bands	Membranous pericolitis	2	2					2				
Laparotomy exploratory	Constipation, chronic	1		1				1				
Do	Sclerosis of ileum	1	1					1				
Division of bands and plication of mesentery 1 Plastic 1 Adhesions freed 3 Release of kink, and repair of bowel 1	Lane kink, ileum	6	6					6				
End to end anastomosis and suture 1 Resection 6 inches of ileum 1	Fecal fistula, due to tuberculous ulceration.	2			2			2				
Enterostomy	Ulcer of cecum, perforated.	1	1					1				
Evacuation of abscess and drainage 5 Appendectomy 600 Appendectomy, flushing abdominal cavity and drainage 6	Appendicitis (15 cases gangrenous).	611	602	3		6	1	590	19		1	
Appendectomy	Routine procedure in abdominal operations.	1	1					1				
Excision of fistulous tract and closure.	Fecal fistula caput ceci after old appendectomy.	1	1					1				
Incision and drainage	Sinus following appendicitis.	1	1					1				
Laparotomy exploratory 2 Laparotomy and freeing of adhesions 11	Adhesions intra-abdominal (8 cases followed the operation of appendectomy).	13	11	2				13				
Laparotomy exploratory	Sarcoma abdominal, involving kidney.	1	1					1				

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	ABDOMEN—continued.											
testinal anastomosis, end to side.	Intestinal obstruction acute, due to carcinoma of cecum.	1	1					1				
ndrews' operation 4 assini's operation 207 assini's modified operation 15 rguson's operation 25 rguson's modified operation 1 alstead's operation 3 erniotomy, method not stated 12	Inguinal hernia	267	267				7	232	18		10	
emoval of sac and suture of peritoneum muscles and fascia 1 ayo's operation 6 ayo's modified operation 1 ake's operation 1 ndrews' radical operation 1 verlapping rectus sheet 2 pair of hernia, method not stated 6 cision of scar tissue, and bringing tissues into correct apposition 1	Ventral hernia (9 cases followed the operation of appendectomy, and 1 followed supra-pubic prostatectomy).	19	19				2	15			2	
moval of sac and suturing 1 ssini's operation 2	Femoral hernia	3	3					2				1
cision of scar and suture.	Painful scar after Bassini's operation.	1	1								1	
parotomy exploratory, uture of colon and drainge.	Gunshot wound, abdomen.	1	1					1				
parotomy exploratory, nd suture of wounds of ver and stomach.	do	1				1		1				
parotomy exploratory, ith drainage.	do	1	1					1				
dominal section with ture of perforations of ladder and intestines nd resection of 12 inches f ileum.	do	1				1		1				
parotomy exploratory	do	1	1					1				
parotomy	Gunshot wound with perforation of intestines.	1				1		1				
Do	Gunshot wound, left iliac region.	1				1		1				
Do	Rupture of intestines	1	1					1				
arotomy, and toilet of dominal cavity.	Rupture of liver	1				1			1			
arotomy and spleenecmy.	Laceration of spleen	1				1		1				
arotomy, control of morrhage, and repair laceration of mesentery.	Laceration of mesentery, peritoneum, and liver, and rupture of blood vessels in posterior mediastinum and pleural cavities.	1				1		1				
arotomy and ligam of deep epigastric tery and drainage 1 arotomy exploray and drainage 1	Stab wound of abdomen	2		1		1		2				
arotomy exploratory, th repair of abdominal und.	Stab wound penetrating, with hernia of omentum.	1	1					1				

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	ABDOMEN—continued.											
Laparotomy and suture	Incised wound involving liver.	1	1					1				
Laparotomy exploratory and repair 1 Laparotomy 3	Incised wound, abdomen.	4	3			1		4				
Do	Punctured wound	1	1					1				
Do	Contusion severe	1	1					1				
Laparotomy, tamponade, and posterior drainage.	Cyst of pancreas, traumatic.	1	1					1				
Incision, evacuation, and suture.	Hematoma abdominal wall, sequel to gastroenterostomy.	1	1					1				
Laparotomy and drainage	Abscess pericecal	1	1					1				
Incision and drainage	Abscess umbilical	1	1					1				
	ANUS AND RECTUM.											
Whitehead's operation	Prolapse of rectum	3	3					1	2			
Incision and curetment 12 Excision of fistulous tract 1 Incision and drainage 24 Incision, curetment, and packing 2	Ischio-rectal abscess	39	39				2	14			11	1
Divulsion and cauterization 1 Dilatation 1 Dilatation and curetment 3 Incision and curetment 1 Incision, curetment, and packing 2	Fissure of anus	8	8				1	4			3	
Do 4 Cauterization 1 Excision 14 Excision, curetment, and drainage 16 Excision and cauterization 6 Excision and suture 1 Allingham's operation 1 Dissection and curetment of tract 3	Fistula in ano	46	46				7	33	1		4	
Excision	Fistula in ano, tuberculous.	1	1								1	
Incision, drainage, and cauterization.	Perineo-rectal abscess	1	1					1				
Incision and curetment 1 Incision and drainage 9	Peri-rectal abscess	10	10				1	3			4	
Do	Peri-anal abscess	1	1					1				
Do	Infected sinus sequel to operation for fistula in ano.	1	1					1				
Dissection of scar tissue with union of ends of sphincter.	Loss of sphincter control after operation for fistula in ano.	1	1				1					
Clamp and cautery 39 Clamp and suture 5 Clamp and ligation 16 Clamp and excision 1 Clamp, cautery, and suture 11 Clamp, cautery, and excision 2 Clamp, suture, and cautery 2 Cauterization 1 Excision 73 Excision and suture 19 Excision and ligation 3 Excision and cautery 3 Excision, clamp, and cautery 20	Hemorrhoids	358	358				25	233	2		92	

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	ANUS AND RECTUM—con.											
icision and evacuation of clot....... 32 igation....... 4 igation and incision... 15 igation, clamp, and cautery....... 4 igation and excision.. 87 ilcher's operation..... 14 hewell-Thomas operation....... 7	Hemorrhoids..............	358	358	....	...	...	25	233	2	....	92	6
ilatation of sphincter and cauterization.	Neuralgia circumanal, after clamp and cautery for hemorrhoids.	1	1	....	...	...	...	.....	1	....	.....	...
xcision..................	Papillomata circumanal...	2	2	....	...	...	...	.....	.....	....	1	1
	GENITO-URINARY SYSTEM.											
ephrectomy..............	Pyonephrosis............	1	1	....	...	...	...	1	.....	....	.....	...
Do....... 1 elolithotomy....... 1	Nephrolithiasis..........	2	2	....	...	...	...	1	.....	....	1	...
ephrolithotomy with esection of upper pole f kidney.	Nephrolithiasis with hydronephrosis upper pole of kidney.	1	1	....	...	...	...	1	.....	....	.....	...
elolithotomy (18 stones removed).	Pyelitis, chronic..........	1	1	....	...	...	...	1	.....	....	.....	...
phrotomy, exploratory..	Suspected nephrolithiasis.	1	.....	....	1	...	...	1	.....	....	.....	...
Do..................	Nephralgia...............	1	1	....	...	...	...	1	.....	....	.....	...
phropexy..............	Torsion of ureter (Dietl's crises).	1	.....	1	...	...	...	1	.....	....	.....	...
eterolithotomy..........	Calculus, ureteral..........	1	1	....	...	...	...	1	.....	....	.....	...
Do..................	Urinary fistula, stone in ureter.	1	1	....	...	...	...	1	.....	....	.....	...
thotomy suprapubic.....	Calculi in bladder.........	1	1	....	...	...	...	1	.....	....	.....	...
stotomy, exploratory....	Hematuria...............	1	1	....	...	...	...	1	.....	....	.....	...
chidectomy..............	Neuralgia of testicle.......	1	1	....	...	...	...	1	.....	....	.....	...
Do..................	Orchitis nodular..........	1	1	....	...	...	...	1	.....	....	.....	...
Do..................	Fibro-adenoma of testes...	1	1	....	...	...	...	1	.....	....	.....	...
Do..................	Epididymitis, tuberculous	1	1	....	...	...	...	1	.....	....	.....	...
Do....... 2 ision, exploratory... 1 eration to place testi-le in scrotum....... 1	Undescended testicle......	4	4	....	...	...	...	3	.....	....	1	...
cision portion of cord....	Tumor of spermatic cord..	1	1	....	...	...	...	1	.....	....	.....	...
siculotomy with drainage	Cysts of seminal vesicle...	1	1	....	...	...	...	.....	1	....	.....	...
ainage of seminal vesicles	Vesiculitis...............	1	1	....	...	...	...	1	.....	....	.....	...
ision and drainage......	Orchitis..................	1	1	....	...	...	...	1	.....	....	.....	...
racentesis........... 7 ision and multiple unctures........... 3 gner's operation..... 10 ididymotomy....... 76	Epididymitis.............	96	96	....	...	...	7	67	.....	....	22	...
ididymectomy..........	Epididymitis chronic tuberculous.	1	1	....	...	...	...	1	.....	....	.....	...
cision..................	Tumor of epididymis......	1	1	....	...	...	...	.....	.....	....	1	...
van's operation...... 4 vis's operation...... 2 gh excision of veins.. 148 w excision of veins.. 6 cision, site not stated 3 ation and removal... 4 gh radical operation.. 1 gh excision and curtailment of scrotum.. 2	Varicocele................	170	170	....	...	...	3	115	5	....	47	...
oulay's operation... 3 kmann's operation.. 2 piration........... 6 pping.............. 2 ision of sac......... 6 drews's bottle opera-on............. 20	Hydrocele................	51	51	....	...	...	1	33	2	....	11	4

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	GENITO-URINARY SYSTEM—continued.											
Aspiration and injection of phenol 2 Eversion of sac 3 Resection of tunica vaginalis 4 Buttonhole operation 1 Radical operation 1 Incision and drainage 1	Hydrocele	51	51	....	....	....	1	33	2	....	11	4
Excision of sac 2 Evacuation and injection of phenol 1	Hydrocele of cord	3	3	....	....	....	2	1	....	....	....	....
Aspiration	Hematocele following hernotomy.	1	1	....	....	....	....	....	....	....	1	....
Prostatectomy	Prostatitis chronic	2	2	....	....	....	....	2	....	....	....	....
Perineal section, and superpubic cystotomy.	Rupture of deep urethra and urinary infiltration.	2	2	....	....	....	....	2	....	....	....	....
Cystotomy suprapubic and retrocatheterization and drainage.	Gunshot wound with rupture of deep urethra.	1	1	....	....	....	....	1	....	....	....	....
Cystotomy, perineal	Stricture, multiple membranous urethra with retention of urine.	1	1	....	....	....	1	....	....	....	....	....
Perineal urethrotomy and suprapubic cystotomy.	Stricture of urethra, deep	1	1	....	....	....	1	....	....	....	....	....
Aspiration suprapubic	Hypertrophy of prostate and chronic cystitis.	2	2	....	....	....	....	....	....	....	....	
Prostatotomy	Abscess of prostate	2	2	....	....	....	....	1	....	....	1	..
Dilatation	Stricture of prostatic urethra.	4	4	....	....	....	....	2	....	....	1	
Incision and drainage through perineum.	Cowperitis	1	1	....	....	....	....	....	....	....	1	..
Incision and drainage 19 External urethrotomy and curetment 1	Perineal abscess	20	20	....	....	....	....	3	....	....	17	..
Incision and evacuation	Perineal abscess, chronic tuberculous.	1	1	....	....	....	....	1	....	....	....	..
Incision and cauterization 1 Incision and drainage 14 Incision and curetment 2	Periurethral abscess	17	17	....	....	....	....	4	....	....	13	..
Urethrotomy, internal 10 Meatotomy and sounds 1	Stricture of urethra	11	11	....	....	....	....	9	....	....	2	..
Meatotomy	Stricture of meatus	4	4	....	....	....	....	....	....	....	3	
Plastic operation 1 Excision 1	Fistula of urethra	2	2	....	....	....	....	1	....	....	1	..
Plastic operation	Hypospadias	1	1	....	....	....	....	....	....	....	1	..
Circumcision	Elongated and redundant prepuce.	151	151	....	....	....	1	18	1	....	131	..
	Phimosis	260	260	....	....	....	1	20	....	....	239	..
	Paraphimosis	13	13	....	....	....	....	8	....	....	5	..
	Venereal sore	19	19	....	....	....	....	9	....	....	10	.
	Balanitis	5	5	....	....	....	....	2	....	..	3	.
	Herpes progenitalis	2	2	....	....	..	....	....	....	....	2	.
	Enuresis	1	1	....	....	....	....	1	....	....	....	.
Excision	Scar tissue resulting from circumcision.	1	1	....	....	....	....	1	....	....	....	.
Trout's operation 3 Resection 2	Redundant scrotum	5	5	....	....	....	....	4	1	....	....	.
Incision and drainage	Abscess of scrotum	2	2	....	....	....	....	1	....	....	....	
	VASCULAR SYSTEM.											
Trephining and drainage 1 Decompression and exploration of parietal region 1	Cerebral hemorrhage (1 traumatic).	2	....	1	....	1	....	2	....	....	....	.
Ligation	Laceration superficial femoral artery.	1	1	....	....	....	....	1	....	....	....	.
Ligation of blood vessels	Incised wound of face and neck.	1	1	....	....	....	....	1	....	....	....	.

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	VASCULAR SYSTEM—continued.											
igation 2 igation and excision 21 ultiple ligation 6 ayo's operation 6 chede's operation 3 eller's operation 1 eller's modified operation 2 xcision 11	Varicose veins	52	52				1	34			17	
Do 1 cision and drainage 1	Thrombosis	2	2					1			1	
	NERVOUS SYSTEM.											
iberation of nerve from fibrous tissue excision callus and interposition of fascial flap.	Musculo-spiral paralysis following fracture of humerus.	1	1					1				
omberg's operation	Dislocation of ulnar nerve.	1	1					1				
eurorrhaphy	Severed ulnar nerve	1	1					1				
et stretching of nerve	Neuritis, sciatic	1	1					1				
xcision	Neuroma	1	1					1				
europlasty	Gunshot wound severing anterior tibial nerve.	1			1			1				
	SKIN AND CELLULAR TISSUE.											
ultiple incisions 5 cision and drainage 598 cision, curetment and drainage 2 spiration 2	Abscess	607	605		2		1	24		1	256	325
cision and curetment 5 cision and drainage 27	Carbuncle	32	32					3			14	15
Do	Cellulitis	168	168				2	10			52	104
Do	Sinusitis submucous	1	1					1				
xcision and suture 1 xcision and drainage 1 xcision and curetment 1	Sinus	3	3					2			1	
Do 1 xcision 1	Ulcer	2	2					1			1	
Do	Callus	2	2								2	
Do	Keloid	1	1								1	
Do	Mole	3	3								3	
Do	Pigmentation from powder burn.	1	1								1	
xcision and suture	Corn	1	1								1	
xcision and curetment	Tattoo	1	1								1	
xcision	Painful scar	3	3					1			2	
Do	Old granular scar	1	1					1				
xcision of cicatricial bands	Cicatricial contraction	1		1				1				
xcision of nail and matrix 11 vulsion 6 xcision and avulsion 2 xcision and curetment 6 xcision 153 rtial excision 85 ulsion of nail and excision of matrix 1 ger's operation 1 tting's operation 22 eller's operation 44 n Bergmann's operation 8 moval of ingrowing margin and redundant tissue 34 moval of nail, cauterization and curetment of matrix 1	Ingrowing toenail	374	374				2	10		5	349	8

Table No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result. Successful.	Result. Partially successful.	Result. Failure.	Result. Died.	Anesthetic. Chloroform.	Anesthetic. Ether.	Anesthetic. Chloroform and ether.	Anesthetic. Other general anesthetic.	Anesthetic. Local.	Anesthetic. None.
	SKIN AND CELLULAR TISSUE—continued.											
Incision and curetment. 1 Incision and drainage... 4 Excision.............. 1 Removal of nail........ 1	Onychia	7	7	....	....	....	....	1	....	....	3	3
Excision	Deformed toenail	5	5	....	....	....	....	1	....	....	4	....
Do	Verruca	5	5	....	....	....	1	....	....	....	4	....
	LYMPHATIC SYSTEM.											
Adenectomy	Adenitis, tuberculous	5	5	....	....	....	....	2	....	....	3	....
Do.............. 154 Incision and curetment. 18 Incision and drainage... 360 Cauterization.......... 1	Adenitis, inguinal, venereal.	533	533	....	....	....	19	152	....	....	290	72
Adenectomy........... 69 Incision and curetment. 8 Incision and drainage.. 156	Adenitis, inguinal, nonvenereal.	233	233	....	....	....	17	90	....	....	87	39
Incision and injection of iodoform.	Adenitis, inguinal, nature not stated.	6	6	....	....	....	....	....	....	1	5	....
Adenectomy........... 4 Incision and drainage... 16 Incision and curetment 3	Adenitis, various locations, nature not stated.	23	23	....	....	....	....	8	1	....	11	3
Incision and drainage	Lymphangitis	4	4	....	....	....	....	....	....	....	1	3
Excision	Cyst, cervical lymphatic gland.	1	1	....	....	....	....	....	....	....	1	....
	MUSCLES, TENDONS, FASCIAE, LIGAMENTS AND BURSÆ.											
Suture of muscle	Incised wound of supinator longus.	1	1	....	....	....	....	1	....	....	....	....
Suture of muscles, fascia, and skin.	Incised wound of hand	1	1	....	....	....	....	....	....	....	1	....
Tenorrhaphy	Severed tendons	13	13	....	....	....	....	6	....	....	3	4
Freeing of adhesions, and tendon lengthening.............. 1 Tenotomy and lengthening of long flexor tendon.............. 1	Contracted tendon, finger	2	2	....	....	....	....	1	....	....	1	....
Tenotomy, partial	Flexed finger	1	1	....	....	....	....	....	....	....	1	....
Excision and freeing of tendons.	Old scars involving tendons.	1	1	....	....	....	....	1	....	....	....	....
Evacuation	Tenosynovitis	1	1	....	....	....	....	....	....	....	1	....
Free end of vastus externus anchored to quadriceps extensor tendon.	Rupture of quadriceps extensor tendon.	1	1	....	....	....	....	1	....	....	....	....
Suture of muscle and sheath	Rupture of rectus femoris 2 inches below patella.	1	1	....	....	....	....	1	....	....	....	....
Excision of bursa and tubercle, with attachment of ligamentum patellæ to freshened tibia.	Bursitis, chronic ligamentum patellæ with detachment of tubercle.	1	1	....	....	....	....	....	1	....	....	....
Tenotomy of flexor longus hallucis tendon opposite internal malleolus.	Flexed contracture of the 5 toes.	1	1	....	....	....	....	1	....	....	....	....
Tenotomy, flexor tendon	Hammer toe	1	1	....	....	....	....	....	....	....	1	....
Excision of bursa....... 7 Aspiration............. 1 Incision and drainage... 8 Incision and curetment. 1	Bursitis	17	17	....	....	....	1	3	....	....	12	1
Excision	Ganglion	9	9	....	....	....	....	2	....	....	7	....
Do	Bursa	2	2	....	....	....	....	2	....	....	....	....
	BONES.											
Removal of fragments and drainage.	Fracture, compound comminuted, fronto-parietal junction.	1	1	....	....	....	....	1	....	....	....	....
Trephining and removal of depressed fragment outer table.	Fracture, compound, depressed parietal bone.	1	1	....	....	....	....	....	....	....	1	....

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	BONES—continued.											
evation and removal of bone fragments.	Fracture, compound comminuted, frontal bone.	1	1	....	...	...	...	1	....	....	....	...
Do.	Fracture, depressed frontal bone, gunshot.	1	....	....	...	1	...	....	....	....	....	1
ter-musculo-temporal decompression.	Fracture of skull with subdural hemorrhage.	2	1	....	...	1	...	1	....	....	....	1
shing's decompression operation.	Fracture, compound comminuted, base of skull.	1	....	....	1	...	...	1	....	....	....	...
ephining, removal of depressed bone, and epidural and subdural clots.	Fracture of skull, comminuted, with epidural and subdural clots.	1	1	....	...	...	...	1	....	....	....	...
compression.......... 2 ephining............. 2	Fracture of skull..........	4	3	....	...	1	...	3	....	....	....	1
evation of depressed fragments.	Gunshot wound of cranium	1	1	....	...	...	...	1	....	....	....	...
minectomy	Fracture, complete, seventh cervical vertebra.	1	....	1	...	...	...	1	....	....	....	...
ploratory operation.....	Congenital malformation greater cornua hyoid bone.	1	1	....	...	...	...	1	....	....	....	...
retment and wiring of ragments............ 1 iring of fragments.... 10 ploratory operation, ith a view to wiring ragments, found impracticable, teeth ired................ 1	Fracture, inferior maxilla..	12	9	2	1	...	...	9	....	....	1	2
cular wire to fracture 1 plication of Lane one plate............ 5 moval of wire........ 1 moval of Lane bone late................. 2	Fracture of clavicle........	9	9	....	...	...	...	8	....	....	1	...
shening of ends, and setting.	Fracture of clavicle with vicious union.	1	1	....	...	...	...	1	....	....	....	...
eotomy, resetting nd wiring........... 1 cision, fibrous tissue, section and plating. 1	Fracture of clavicle with nonunion.	2	1	....	1	...	...	2	....	....	....	...
moval of spicula of bone.	Fracture, incomplete, clavicle.	1	1	....	...	...	...	1	....	....	....	...
moval of small fragments	Fracture of scapula........	1	1	....	...	...	...	1	....	....	....	...
ing to humerus of eater tuberosity.... 1 osition of fragments, nd insertion of two one grafts from crest tibia................ 1	Fracture, greater tuberosity of humerus.	2	2	....	...	...	...	2	....	....	....	...
lication of Lane bone late.	Old fracture, ununited, humerus.	1	1	....	...	...	...	....	1	....	....	...
moval of loose fragments d partial repair of joint psule.	Fracture compound comminuted lower end of humerus and upper end of ulna.	1	1	....	...	...	...	1	....	....	....	...
luction and application Sherman plates to both nes.	Fracture simple transverse radius and ulna.	1	1	....	...	...	...	1	....	....	....	...
gical fracture, removal redundant callus, resetting and application of st.	Slight angulation and redundant callus following fracture of radius and ulna.	1	1	....	...	...	...	1	....	....	....	...
tured ends freshened liquely, brought into position, two holes ade with bone drill and rts held firmly with ngaroo tendon.	Fracture simple radius, junction of upper and middle thirds with nonunion.	1	1	....	...	...	...	1	....	....	....	...
ing of fragments.... 1 lication of Lane ne plate............ 1	Fracture simple of radius..	2	2	....	...	...	...	2	....	....	....	...
Do.	Deformity of wrist from old Colles's fracture.	1	1	....	...	...	...	1	....	....	....	...

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	BONES—continued.											
Excision of styloid	Fracture, ununited, styloid process.	1	1	....	...	...	...	1	....	....	.....	...
Coccygectomy	Coccygodynia	1	1	....	...	...	...	1	....	....	.....	...
Freshening of fracture, nailing and splinting.	Fracture old, ununited, surgical neck of femur.	1	1	....	...	...	...	1	....	....	.....	...
Callus removed, reduction, Lane plate applied.	Fracture simple, unreduced, middle third of femur.	1	1	....	...	...	...	1	....	....	.....	...
Application of Lane bone plate.	Fracture of femur	3	3	....	...	...	...	3	....	....	.....	...
Wiring of fragments	Fracture simple transverse of patella.	1	1	....	...	...	...	1	....	....	.....	...
Incision and suturing of fragments.	Fracture simple of patella.	2	2	....	...	...	...	2	....	....	.....	..
Removal of wire	do	1	1	....	...	...	...	1	....	....	.....	..
Reduction resection and plating.	Fracture simple tibia and fibula.	1	1	....	...	...	...	1	....	....	.....	..
Excision of fragments and application of Lane bone plate.	Fracture compound comminuted tibia and fibula.	1	1	....	...	...	...	1	....	....	.....	..
Incision and wiring of fragments 1 Excision of protruding spicula of bone in malunion of tibia 1	Fracture simple of tibia and fibula.	2	2	....	...	...	...	2	....	....	.....	..
Fracture exposed and metal plate inserted 2 Freshening of ends and wiring 1	Fracture ununited tibia and fibula.	3	1	1	1	...	...	3	....	....	.....	..
Old plate removed, new plate inserted.	Fracture compound comminuted both bones of leg.	1	1	....	...	...	...	1	....	....	.....	..
Removal of Lane bone plate	Fracture of tibia and fibula	3	3	....	...	...	...	1	....	....	2	..
Wiring of fragments	Fracture compound of tibia	1	1	....	...	...	...	1	....	....	.....	..
Do	Fracture simple of tibia	1	1	....	...	...	...	1	....	....	.....	..
Do	Fracture comminuted of fibula.	1	1	....	...	...	...	1	....	....	.....	.
Incision, freshening of fragments and approximation with catgut.	Fracture comminuted tibia	1	1	....	...	...	...	1	....	....	.....	.
Removal of Lane bone plate	Fracture of tibia, old	3	3	....	...	...	...	3	....	....	.....	.
Do	Fracture of fibula	1	1	....	...	...	...	1	....	....	.....	.
Removal of wire	Fracture of tibia	1	1	....	...	...	...	1	....	....	.....	.
Incision through old scar and removal of wire.	Painful leg from old fracture.	1	1	....	...	...	...	1	....	....	.....	.
Chiseling of redundant callus, straightening tibia and splinting.	Redundant callus with angulation site of old fracture of tibia.	1	1	....	...	...	1	.....	....	....	.....	.
Removal of sequestra	Old compound fracture of tibia.	1	1	....	...	...	...	1	....	....	.....	.
Suture of fragments 2 Lambotte's operation 1	Fracture simple of malleolus.	3	3	....	...	...	...	3	....	....	.....	.
Incision and removal of fragments.	Fracture compound comminuted, metacarpal.	1	1	....	...	...	...	.....	....	....	1	.
Resection and removal of fragments.	Fracture metacarpal, nonunion.	1	1	....	...	...	...	1	....	....	.....	.
Suturing of wound and setting of fracture.	Fracture compound of thumb.	1	1	....	...	...	...	1	....	....	.....	.
Excision of fragments	Fracture of scaphoid	1	1	....	...	...	...	1	....	....	.....	
Removal of loose fragments.	Fracture compound comminuted, metatarsal.	1	1	....	...	...	...	1	....	....	.....	
Removal of painful fragment.	Old fracture, metatarsal	1	1	....	...	...	...	1	....	....	.....	
Excision of fragments	Fracture compound of great toe.	1	1	....	...	...	...	1	....	....	.....	
Incision and removal of wire	Sinus persistent at site of fracture.	1	1	....	...	...	...	1	....	....	.....	
Curetment of sinus and bone.	Gunshot wound of ilium, perforating old.	2	2	....	...	...	1	1	....	....	.....	
Do	Necrosis of clavicle, old gunshot wound.	1	1	....	...	...	...	1	....	....	.....	
Do	Necrosis, site of old fracture	3	3	....	...	...	1	2	....	....	.....	

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	BONES—continued.											
emoval of sequestrum	Necrosis of tibia, site of fracture.	2	2					1			1	
emoval of dead bone	Necrosis of metacarpal	1	1				1					
Do. 7 cision and curetment. 5	Necrosis, site not stated	12	10	2				4			7	1
ephining of femur	Osteomyelitis of femur	1	1					1				
emoval of bone plate and excision of excessive callus.	Osteomyelitis chronic suppurative at site of screw in bone plate.	1	1					1				
uretment of bone and medulla.	Osteomyelitis tibia, site of fracture.	1	1				1					
xcision of anterior surface.	Osteomyelitis, middle third of tibia.	1	1					1				
xcision of terminal phalanx.	Osteomyelitis thumb	1	1					1				
uretment	Rarefying osteitis tibia	1	1					1				
xcision of periosteum, curetment of bone and drainage.	Osteoperiostitis tibia	1	1					1				
xcision of periosteum	Osteoperiostitis plastic, tubercle of tibia.	1	1					1				
cision, curetment, and drainage.	Osteoperiostitis tibia syphilitic.	1	1					1				
Do.	Osteoperiostitis, site not stated.	2	2					2				
Do. 1 cision and drainage. 3	Periostitis of tibia	4	2	2				3			1	
retment of periosteum and bone with drainage.	Periostitis suppurative fibula.	1	1				1					
Do. 6 cision and curetment. 1	Periostitis, site not stated.	7	7					3			3	1
cision	Exostosis, tibia	1	1					1				
Do.	Exostoses, os calcis	4	4					4				
Do.	Exostosis, scaphoid, foot	1	1					1				
Do.	Exostosis, first metatarsal.	1	1								1	
Do.	Exostosis, site not stated	6	6					5			1	
	JOINTS.											
hrotomy, removal of redundant capsule.	Dislocation chronic subcoracoid.	1	1					1				
psular ligament shortened by plication anterior route.	Recurrent dislocation shoulder.	1	1								1	
Do.	Subluxation shoulder	1	1					1				
ision and drainage	Arthritis elbow, gonorrheal	1	1					1				
duction and suture	Dislocation, acromio-clavicular.	1	1					1				
cision head of radius	Limitation of extension and rotation of elbow joint.	1	1					1				
moval	Foreign body elbow joint	3	3					2			1	
section	Recurrent dislocation finger.	1	1								1	
moval of callus	Ankylosis, thumb	1	1								1	
eing of adhesions	Ankylosis phalangeal joint	1	1					1				
ision and removal detached fragments.	Partially detached segments inner condyle of femur.	1	1					1				
ploration of joint. 1 ision and drainage. 1	Synovitis knee joint	2	2					2				
Do.	Arthritis, site not stated	2	2					2				
cision of villi	Synovitis chronic due to hypertrophied synovial villi.	1	1					1				
acentesis	Hydrarthrosis knee joint	1	1									1
piration	Hydrops articuli	1	1									1
Do.	Contusion knee joint	1	1					1				
cision	Post-patellar fringe	1	1					1				
section interphalangeal	Hammer toe	1	1					1				

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	JOINTS—continued.											
Arthrotomy, excision of semilunar cartilages and plication of joint capsule.	Dislocation semilunar cartilages and relaxation capsular ligament knee joint.	2	2	....	...	...	...	2	....	....	.....	...
Excision	Loose, fractured, and dislocated cartilage knee joint.	14	12	2	...	...	...	11	....	....	3	...
Excision of exostosis ... 2 Excision head first metatarsal ... 1 Partial excision articular extremity ... 1 Mayo's operation ... 12 Keller's operation ... 1 Keller's modified operation ... 1	Hallux valgus	18	16	2	...	...	...	18	....	....	.....	...
Incision and drainage	Infected wound, metatarso-phalangeal articulation.	1	1	....	...	...	...	.....	....	....	.....	1
Incision and removal	Ossified foreign body in joint cavity.	1	1	....	...	...	...	1	....	....	.....	...
	AMPUTATIONS.											
Amputation:												
Interscapulo-thoracic, "Berger."	Sarcoma, left upper extremity.	1	1	....	...	...	...	1	....	....	.....	...
Arm, upper third	Fracture, complicated with gangrene.	1	1	....	...	...	...	1	....	....	.....	...
Arm, site not stated	Gunshot wound, forearm	1	1	....	...	...	...	1	....	....	.....	...
Forearm, middle third	Gunshot wound of wrist	1	1	....	...	...	...	1	....	....	.....	...
Hip joint	Fibrosarcoma, thigh	1	.....	....	...	1	...	1	....	....	.....	...
Thigh, middle third	Gangrene of leg	1	1	....	...	...	...	1	....	....	.....	...
Thigh, upper third	Old deformed partially united fracture.	1	1	....	...	...	...	1	....	....	.....	...
Leg, upper third	Crushing of leg	1	1	....	...	...	...	1	....	....	.....	...
Leg, middle third	Fibro-osteoma, sarcomatous degeneration.	1	1	....	...	...	...	1	....	....	.....	...
Leg, lower third	Gangrene of foot and lower leg.	1	1	....	...	...	...	.....	....	....	1	...
Do	Ununited fracture	1	1	....	...	...	...	1	....	....	.....	...
Amputation of finger	Gunshot wound ... 15 Lacerated wound ... 9 Crushing ... 5 Other injury ... 3 Osteomyelitis ... 3 Ankylosis ... 2 Other disease ... 6 Supernumerary little fingers ... 2	45	45	....	...	...	5	18	2	....	20	..
Amputation of toe	Gunshot wound ... 1 Crushing ... 1 Traumatic amputation 1 Gangrene (5 toes amputated in one case). 2 Malformation ... 4 Bunions and corns ... 12 Hammer toe ... 10 Overriding toe ... 4 Deformity ... 2	37	37	....	...	...	2	19	....	....	15	
	FOREIGN BODIES.											
Incision and exploration	Bullet embedded in bone	1	.....	....	1	...	...	1	....	....	.....	..
Incision and extraction	Bullet	29	28	....	1	...	...	6	....	....	20	
Do	Bird shot	6	6	....	...	...	...	.....	....	....	5	
Do	Fishhook	1	1	....	...	...	...	.....	....	....	.....	
Do	Needle	3	3	....	...	...	...	.....	....	....	3	.
Do	Thorn	4	4	....	...	...	...	.....	....	....	1	
Do	Glass, piece of	2	2	....	...	...	...	.....	....	....	2	..
Multiple incision and extraction.	Spines of sea urchin	1	1	....	...	...	...	.....	....	....	.....	

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	FOREIGN BODIES—contd.											
emoval	Nail in, situplastic operation ankle joint.	2	2					1			1	
emoval piece of drill and necrosed bone.	Piece of drill in external malleolus.	1	1					1				
ncision and extraction	Foreign body in wrist	1	1								1	
Do	Piece of steel	1	1									1
	TUMORS.											
xcision	Carcinoma, metastatic	1	1								1	
Do	Sarcoma	2	1	1				2				
Do	Fibro-endothelioma, parotid and submaxillary glands.	1	1					1				
		1	1				1					
ection of bony tumor for microscopical examination.	Osteosarcoma of fibula	1	1				1					
xcision with resections lower jaw.	Epithelioma inferior maxilla.	1	1					1				
xcision with electric knife.	Epithelioma of thigh	1	1								1	
xcision of rodent ulcer. 1 xcision 1	Epithelioma, site not stated	2	2					1			1	
Do	Ephithelioma, benign	1	1									1
Do	Chondroma	2	2								2	
Do	Cyst	4	4								4	
ncision and drainage 1 xcision 6	Dermoid cyst	7	7								5	2
Do	Enchondroma	1	1								1	
Do	Fibroma	6	6					2			4	
ncision and drainage	Hematoma	2	2								2	
xcision	Lipoma	17	17					5			12	
Do	Myoma	2	2					2				
Do	Neuroma	1	1								1	
Do	Osteoma, base fifth metatarsal.	1	1					1				
xcision and suture	Papilloma	6	6					2			4	
Do 4 cision and drainage 12 xcision 28 xcision and cauterization 2 xcision and curetment 7	Sebaceous cyst	53	53					3			44	6
cision	Serous cyst	1	1								1	
cision and removal	Subcutaneous tumor, wrist, type not stated.	1	1								1	
mputation of breast 1 xcision 2	Tumor of breast, type undetermined.	3	3					2	1			
Do	Tumor of plantar fascia, type not stated.	1	1					1				
Do	Tumor, type and site not stated.	1	1					1				
	PLASTIC OPERATIONS.											
lastic operation forming new lip.	Scar upper lip	1	1								1	
lastic operation to close in granulating area.	Granulating area from operation for cleft in nose.	1	1								1	
lastic operation, method not stated.	Lacerated wounds	1	1					1				
	Cicatricial contracture of finger.	1	1								1	
	Cicatricial adhesions, hand, from gunshot wound.	1	1					1				
	Cicatrix inner angle of eye.	1	1								1	
	Chronic dislocation of shoulder.	1	1					1				
	Arthritis, knee	1	1					1				
	Gunshot wound of hand	1	1					1				

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1915*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Other general anesthetic.	Local.	None.
	MISCELLANEOUS OPERATIONS.											
Exploratory operation	Suspected psoas abscess	1	1	....	...	...	...	1	....	....	.....	...
Injection of peroxide of hydrogen.	Contusion	1	1	....	...	...	1	.....	....	....	.....	...
Suturing	Incised wound	57	57	....	...	...	2	7	....	....	12	[illegible]
Do 39 Removal of porcelain fragments, repair and suture 1	Lacerated wound	40	40	....	...	...	...	5	....	....	15	[illegible]
Incision and suture 1 Incision and drainage 7 Incision, curetment, and phenol 3 Cauterization 1	Punctured wound	12	12	....	...	...	...	3	....	....	.....	9
Exploratory operation 1 Suturing and cleansing 2 Incision and drainage 3	Gunshot wound	6	3	1	...	2	2	3	....	....	1	...
Do	Infected wound	24	24	....	...	...	...	5	....	....	15	[illegible]
Excision	Calcareous nodule	1	1	....	...	...	...	.....	....	....	1	...
Total number of cases.		6,323	6,244	36	15	28	135	2,459	63	7	2,865	794

and injury on United States troops serving at home and abroad in the year 1915, compared with the corresponding data for the year 1914, by races.

ABSOLUTE NUMBERS.

		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
White troops	1915	87,458	65,171	53,387	11,784	1,259	1,129	130	404	220	184	1,663	1,349	314	820,537	2,248.05
	1914	81,750	54,592	44,270	10,322	1,066	935	131	363	188	175	1,429	1,123	306	710,545	1,946.70
Colored troops	1915	5,804	4,271	3,533	738	92	83	9	32	26	6	124	109	15	60,286	165.17
	1914	5,478	3,487	2,786	701	79	69	10	29	20	9	108	89	19	54,338	148.88
Porto Rican troops	1915	681	378	340	38	5	5	....	3	2	1	8	7	1	5,662	15.51
	1914	669	421	367	54	6	6	....	3	....	3	9	6	3	5,499	15.07
Philippine Scouts	1915	5,505	3,159	2,657	502	63	58	5	14	9	5	77	67	10	31,506	86.31
	1914	5,020	3,585	3,104	481	48	44	4	16	11	5	64	55	9	37,189	101.89

PROPORTIONATE NUMBERS.

[Ratios per 1,000 of mean strength.]

		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Constantly noneffective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
White troops	1915	87,458	745.17	610.43	134.74	14.16	12.70	1.46	4.54	2.47	2.07	18.70	15.17	3.53	27.70	9.38	12.59
	1914	81,750	667.79	541.53	126.26	12.90	11.31	1.58	4.39	2.27	2.12	17.29	13.58	3.70	23.81	8.69	13.02
Colored troops	1915	5,804	735.87	608.72	127.15	15.85	14.30	1.55	5.51	4.48	1.03	21.36	18.78	2.58	28.46	10.39	14.12
	1914	5,478	636.55	508.58	127.97	14.42	12.60	1.83	5.29	3.65	1.64	19.71	16.25	3.47	27.17	9.92	15.58
Porto Rican troops	1915	681	555.07	499.27	55.80	7.34	7.34	....	4.41	2.94	1.47	11.75	10.28	1.47	22.78	8.31	14.98
	1914	669	629.30	548.58	80.72	8.97	8.97	....	4.48	....	4.48	13.45	8.97	4.48	22.52	8.22	13.06
Philippine Scouts	1915	5,505	573.84	482.65	91.19	11.44	10.53	.91	2.54	1.63	.91	13.98	12.16	1.82	15.68	5.72	9.97
	1914	5,020	714.14	618.33	95.82	9.56	8.76	.80	3.19	2.19	1.00	12.75	10.95	1.80	20.30	7.41	10.37

Table No. 68.—*Admissions to sick report, discharges, and deaths, with ratios per 1,000 of mean strength, in which all available data for the decade ending Dec. 31, 1914, are placed in comparison with the year 1915.*

	Decade, years 1905-1914. [Army—Enlisted American troops.]						The Army, 1915. [American troops, enlisted men.]					
Mean strength	S. G. O., 697,415—A. G. O., 709,271.						S. G. O., 93,262—A. G. O., 94,729.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	1,478	2.12	5	0.01	112	0.16	7	0.08				
Paratyphoid fever							6	.06				
Malaria	31,195	44.73	9	.01	34	.05	2,113	22.66			2	0.02
Estivo-autumnal fever	5,971	8.56			29	.04	535	5.74			2	.02
Malarial cachexia	378	.54	9	.01	1	.00	8	.09				
Quartan malarial fever	24,367	34.94			4	.01	15	.16				
Tertian malarial fever							1,421	15.24				
Undetermined malarial fever	479	.69					134	1.44				
Smallpox and varioloid	89	.13			5	.01	4	.04				
Vaccinia	13,345	19.13					371	3.98				
Measles	6,033	8.65	9	.01	75	.11	633	6.79	8	0.08	22	.23
Scarlet fever	91	.13			2	.00	50	.54			1	.01
Diphtheria	413	.59	1	.00	7	.01	61	.65			1	.01
Influenza	14,860	21.31			5	.01	3,196	34.27			4	.04
Asiatic cholera	36	.05			16	.02						
Cholera nostras	55	.08					1	.01				
Dysentery	5,247	7.52	97	.14	58	.08	183	1.96	5	.05	2	.02
Bacillary	508	.73	1	.00	17	.02	17	.18				
Entamoebic	3,018	4.33	86	.12	28	.04	138	1.48	5	.05	2	.02
Unclassified	1,721	2.47	10	.01	13	.02	28	.30				
Yellow fever	23	.03			6	.01						
Leprosy	2	.00	2	.00	1	.00						
Erysipelas	434	.62	1	.00	7	.01	23	.25	1	.01	1	.01
Dengue	10,211	14.64			1	.00	1,629	17.47				
German measles	1,181	1.69					75	.80				
Hemoglobinuric fever	7	.01			1	.00						
Mumps	7,812	11.20	1	.00			958	10.27				
Purulent infection and septicemia	92	.13	4	.01	46	.06	7	.08			7	.07
Tetanus	6	.01			4	.01						
Mycoses	27	.04					2	.02				
Beriberi	12	.02			3	.00						
Tuberculosis, all	2,899	4.16	1,846	2.60	351	.49	328	3.52	170	1.79	31	.33

[illegible]	[illegible]	[illegible]	117	.16	65	.09	29	.31	10	.10	8	.08
Venereal diseases, all	111,253	163.82	1,355	1.91	43	.06	10,045	107.71	78	.82	6	.06
Syphilis	20,910	29.98	800	1.13	38	.05	1,992	21.36	47	.50	4	.04
Soft chancre	21,977	31.51	10	.01	1	.00	2,186	23.44	2	.02	....	....
Gonococcus infection	71,366	102.33	545	.77	4	.01	5,867	62.91	29	.31	2	.02
Cancer and other malignant tumors	142	.20	24	.03	59	.08	22	.24	5	.05	9	.10
Benign tumors	1,160	1.66	10	.01	5	.01	119	1.28	....	....	1	.01
Rheumatism, articular, all	7,764	11.13	206	.29	8	.01	542	5.82	19	.20	....	....
Acute articular rheumatism	4,969	7.13	15	.02	8	.01	451	4.84	5	.05	....	....
Chronic articular rheumatism	2,795	4.01	191	.27	....	....	91	.98	14	.15	....	....
Diabetes	138	.20	49	.07	20	.03	14	.15	2	.02	4	.04
Exophthalmic goitre	107	.15	51	.07	....	....	24	.26	10	.11	....	....
Alcoholism and results	16,169	23.18	174	.25	83	.12	1,294	13.87	24	.25	6	.06
Chronic occupational poisoning	41	.06	7	.01	....	....	4	.04	....	....	....	....
Other chronic poisoning, including drug habit	411	.59	114	.16	2	.00	44	.47	9	.10	....	....
Encephalitis	10	.01	....	....	8	.01	....	....	....	....	....	....
Simple meningitis	45	.06	5	.01	25	.04	2	.02	2	.02	1	.01
Epidemic cerebrospinal meningitis	149	.21	17	.02	76	.11	26	.28	7	.07	10	.11
Locomotor ataxia	34	.05	22	.03	1	.00	12	.13	3	.03	....	....
Other diseases of spinal cord	76	.11	56	.08	3	.00	9	.10	5	.05	1	.01
Cerebral hemorrhage, apoplexy	52	.07	12	.02	24	.03	8	.09	....	....	7	.07
Paralysis without specified cause	216	.31	31	.04	2	.00	25	.27	4	.04	....	....
Mental alienation	1,860	2.67	1,291	1.82	6	.01	358	3.82	313	3.30	5	.05
General paralysis of the insane	71	.10	52	.07	3	.00	14	.15	14	.15	4	.04
Dementia precox	1,106	1.59	879	1.24	2	.00	175	1.88	167	1.76	....	....
Other varieties of mental alienation	683	.98	360	.51	1	.00	169	1.79	132	1.39	1	.01
Epilepsy	1,211	1.74	465	.66	5	.01	114	1.22	65	.69	....	....
Neuralgia and neuritis	4,362	6.25	67	.09	1	.00	482	5.17	23	.24	....	....
Conjunctivitis, all	4,382	6.28	34	.05	....	....	385	4.13	2	.02	....	....
Trachoma	275	.39	44	.06	....	....	15	.16	1	.01	....	....
Other diseases of the eye	4,360	6.25	388	.55	....	....	540	5.79	21	.22	....	....
Pericarditis	69	.10	6	.01	8	.01	5	.05	....	....	....	....
Acute endocarditis	95	.14	4	.01	16	.02	9	.10	2	.02	3	.03
Organic heart disease	1,382	1.98	576	.81	140	.20	105	1.13	47	.50	22	.23
Angina pectoris	95	.14	12	.02	6	.01	10	.11	1	.01	2	.02
Diseases of the arteries, atheroma, aneurism, etc	143	.21	36	.05	47	.07	14	.15	4	.04	6	.06
Embolism and thrombosis	36	.05	10	.01	13	.02	3	.03	2	.02	1	.01
Hemorrhoids	5,016	7.19	8	.01	....	....	547	5.86	....	....	....	....
Varicose veins	709	1.02	37	.05	....	....	63	.68	2	.02	....	....
Varicocele	2,290	3.28	15	.02	....	....	245	2.63	2	.02	....	....
Diseases of the lymphatic system	4,669	6.69	1	.00	....	....	627	6.72	2	.02	....	....
Diseases of the nasal fossae	12,321	17.67	49	.07	....	....	1,416	15.18	2	.02	....	....
Diseases of the larynx	2,365	3.39	....	....	1	.00	235	2.52	1	.01	....	....
Diseases of the thyroid body	128	.18	18	.03	2	.00	24	.26	7	.07	....	....
Bronchitis	25,412	36.44	55	.08	5	.01	3,280	35.17	5	.05	1	.01
Broncho-pneumonia	256	.37	....	....	27	.04	53	.57	1	.01	6	.06
Pneumonia	1,517	2.18	8	.01	198	.28	225	2.41	....	....	29	.31
Pleurisy	1,969	2.82	48	.07	17	.02	259	2.78	7	.07	3	.03
Pulmonary congestion and pulmonary apoplexy	102	.15	....	....	4	.01	1	.01	....	....	....	....
Asthma	1,004	1.44	85	.12	....	....	78	.84	14	.15	....	....

TABLE NO. 68.—*Admissions to sick report, discharges, and deaths, with ratios per 1,000 of mean strength, in which all available data for the decade ending Dec. 31, 1914, are placed in comparison with the year 1915*—Continued.

	Decade, years 1905-1914. [Army—Enlisted American troops.]						The Army, 1915. [American troops, enlisted men.]					
Mean strength	S. G. O., 697,415—A. G. O., 709,271.						S. G. O., 93,262—A. G. O., 94,729.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Pulmonary emphysema	31	0.04	9	0.01	1	0.00	2	0.02				
Diseases of the teeth and gums	5,742	8.23	71	.10			494	5.30	1	0.01		
Other diseases of the mouth and annexa	606	.87	1	.00			84	.90				
Diseases of the pharynx	43,804	62.81	3	.00	3	.00	6,071	65.10	1	.01	1	0.01
Ulcer of stomach	124	.18	15	.02	11	.02	23	.25	5	.05	1	.01
Other diseases of stomach (cancer excepted)	20,250	29.04	54	.08	6	.01	1,122	12.03	7	.07	2	.02
Diarrhea and enteritis	31,841	45.66	37	.05	15	.02	2,939	31.51	1	.01	4	.04
Ankylostomiasis	856	1.23	1	.00	1	.00	41	.44	1	.01		
Intestinal parasites	1,127	1.62					96	1.03				
Appendicitis	4,086	5.86	41	.06	86	.12	815	8.74	4	.04	12	.13
Hernia	3,007	4.31	310	.44	18	.03	353	3.79	19	.20	3	.03
Diseases of the anus and fecal fistula	601	.86	6	.01			76	.81				
Other diseases of the intestines	16,246	23.29	38	.05	13	.02	2,772	29.72	6	.06		
Cirrhosis of liver	99	.14	15	.02	19	.03	5	.05	1	.01	1	.01
Biliary calculi	191	.27	2	.00	3	.00	9	.10	1	.01		
Other diseases of liver and gall bladder	2,744	3.93	21	.03	44	.06	389	4.17	2	.02	1	.01
Peritonitis	48	.07	3	.00	17	.02	1	.01			2	.02
Acute nephritis	248	.36	3	.00	37	.05	32	.34			6	.06
Bright's disease	442	.63	123	.17	74	.10	54	.58	12	.13	9	.10
Other diseases of the kidney and annexa	265	.38	18	.03	4	.01	27	.29	1	.01		
Diseases of the bladder	1,752	2.51	243	.34	1	.00	196	2.10	33	.35		
Diseases of the urethra	615	.88	4	.01			143	1.53	1	.01		
Diseases of the prostate	69	.10					15	.16	1	.01		
Diseases of the male genital organs (nonvenereal)	5,465	7.84	28	.04			403	4.32	1	.01		
Furuncle and carbuncle	17,244	24.73					1,625	17.42				
Acute abscess	9,004	12.91	9	.01			1,253	13.44	1	.01	2	.02
Diseases of the bones	1,187	1.70	83	.12	2	.00	236	2.53	6	.06	1	.01
Diseases of the joints	2,504	3.59	134	.19			382	4.10	23	.24		
Congenital malformations	1,960	2.81	568	.80			367	3.94	1	.01		
Senility	14	.02	9	.01			2	.02				
Febricula, simple continued, and other fevers of undetermined causation	3,925	5.63			1	.00	186	1.99				

[illegible]	[illegible]	[illegible]					35	.38				
DISEASES AND INJURIES GROUPED.												
General diseases	239,772	343.80	4,005	5.65	974	1.37	22,101	236.98	337	3.56	98	1.03
Epidemic diseases	96,249	138.01	126	.18	330	.47	9,626	103.21	14	.15	33	.35
Other general diseases	143,523	205.79	3,879	5.47	644	.91	12,475	133.76	323	3.41	65	.69
Diseases of the nervous system and organs of special sense	25,958	37.22	3,109	4.38	163	.23	2,854	30.60	493	5.20	24	.25
Of the nervous system	11,629	16.67	2,304	3.25	156	.22	1,290	13.83	449	4.74	24	.25
Of the eye and its annexa	9,017	12.93	466	.66			940	10.08	24	.25		
Of the ear and its annexa	5,312	7.62	339	.48	7	.01	624	6.69	20	.21		
Diseases of the circulatory system	16,261	23.32	850	1.20	234	.33	1,739	18.65	64	.68	34	.36
Diseases of the respiratory system	45,585	65.36	285	.40	257	.36	5,600	60.04	38	.40	40	.42
Diseases of the digestive system	131,442	188.47	621	.88	251	.35	15,316	164.22	54	.57	30	.32
Diseases of the genito-urinary system	9,156	13.13	428	.60	118	.17	927	9.94	53	.56	16	.17
Diseases of the skin and cellular tissue	54,567	78.24	125	.18	3	.00	5,283	56.65	7	.07	2	.02
Diseases of the organs of locomotion	20,946	30.03	647	.91	2	.00	2,357	25.27	165	1.74	1	.01
Malformations, etc	1,960	2.81	568	.80			367	3.94	1	.01		
Diseases, results of old age	14	.02	9	.01			2	.02				
Ill-defined diseases	9,114	13.07	22	.03	23	.03	374	4.01			1	.01
Total for disease	554,775	795.47	10,669	15.04	2,025	2.85	56,920	610.32	1,212	12.79	246	2.60
External causes	126,124	180.85	1,257	1.77	1,642	2.32	12,522	134.27	139	1.47	190	2.01
Total for disease and external causes	680,899	976.32	11,926	16.81	3,667	5.17	69,442	744.59	1,351	14.26	436	4.60

TABLE NO. 68½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with*
ing American, Porto Rican, and Philippine

Serial Nos.	International classification.		Officers, Army.							
		Mean strength	S. G. O., 4,394—A. G. O., 4,873.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever	1	0.23	.....	.....	.....	.....	0.30	0.07
2	1a	Paratyphoid fever	1	.23	.....	.....	.....	.....	.10	.02
5	2	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....
7-11	4	Malaria	53	12.06	.....	.....	.....	.....	2.18	.50
7	.....	Estivo-autumnal fever	12	2.73	.....	.....	.....	.....	.63	.14
8	.....	Malarial cachexia	4	.91	.....	.....	.....	.....	.40	.09
9	.....	Quartan malarial fever	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	Tertian malarial fever	29	6.60	.....	.....	.....	.....	.97	.22
11	.....	Undetermined malarial fever	8	1.82	.....	.....	.....	.....	.18	.04
12	5	Smallpox and varioloid	.....	.....	.....	.....	.....	.....	.....	.....
13	5b	Vaccinia	.....	.....	.....	.....	.....	.....	.....	.....
14	6	Measles	2	.46	.....	.....	.....	.....	.10	.02
15	7	Scarlet fever	2	.46	.....	.....	.....	.....	.11	.03
17	9	Diphtheria	5	1.14	.....	.....	.....	.....	.18	.04
18	10	Influenza	266	60.54	.....	.....	.....	.....	2.50	.80
19	12	Asiatic cholera	.....	.....	.....	.....	.....	.....	.....	.....
20	13	Cholera nostras	.....	.....	.....	.....	.....	.....	.....	.....
21-23	14	Dysentery	26	5.92	.....	.....	.....	.....	2.05	.47
21	.....	Bacillary	1	.23	.....	.....	.....	.....	.02	.00
22	.....	Entamœbic	22	5.01	.....	.....	.....	.....	1.93	.44
23	.....	Unclassified	3	.68	.....	.....	.....	.....	.10	.02
27	18	Erysipelas	1	.23	.....	.....	.....	.....	.06	.01
29	19b	Dengue	92	20.94	.....	.....	.....	.....	1.66	.38
31	19d	German measles	1	.23	.....	.....	.....	.....	.03	.01
32	19e	Hemoglobinuric fever	.....	.....	.....	.....	.....	.....	.....	.....
34	19g	Mumps	7	1.59	.....	.....	.....	.....	.04	.05
37	20	Purulent infection and septicemia	1	.23	.....	.....	1	0.21	.02	.00
42-46	25	Mycoses	.....	.....	.....	.....	.....	.....	.....	.....
49-57	28-34	Tuberculosis, all	8	1.82	.....	.....	.....	.....	6.81	1.55
49-51	28	Tuberculosis of lungs	7	1.60	.....	.....	.....	.....	6.65	1.51
52	29	Miliary tuberculosis, acute	.....	.....	.....	.....	.....	.....	.....	.....
53-57	30-34	Tuberculosis of other organs	1	.23	.....	.....	.....	.....	.17	.04
58	36	Scoliosis (rickets)	.....	.....	.....	.....	.....	.....	.....	.....
59-74	37-38	Venereal diseases, all	20	4.55	.....	.....	.....	.....	2.43	.5
59-64	37	Syphilis	8	1.82	.....	.....	.....	.....	1.75	.4
65-67	38a	Soft chancre	2	.46	.....	.....	.....	.....	.17	.0
68-74	38b	Gonococcus infection	10	2.28	.....	.....	.....	.....	.51	.1
75-79	39-45	Cancer and other malignant tumors	1	.23	.....	.....	1	.21	.04	.0
80	46	Benign tumors	1	.23	.....	.....	.....	.....	.39	.0
81-85	47-48	Rheumatism, articular, all	16	3.64	.....	.....	.....	.....	1.21	.2
81-82	47	Acute articular rheumatism	11	2.50	.....	.....	.....	.....	.47	.1
83-85	48	Chronic articular rheumatism	5	1.14	.....	.....	.....	.....	.73	.1
87-88	50	Diabetes	2	.46	.....	.....	.....	.....	.11	.0
89	51	Exophthalmic goitre	1	.23	.....	.....	.....	.....	.15	.0
97-100	56	Alcoholism and results	20	4.55	.....	.....	.....	.....	.68	.1
101-102	57-58	Chronic occupational poisoning	.....	.....	.....	.....	.....	.....	.....	.....
103-104	59	Other chronic poisoning, including drug habit	.....	.....	.....	.....	.....	.....	.....	.....
107	61	Simple meningitis	.....	.....	.....	.....	.....	.....	.....	.....
108	61a	Epidemic cerebrospinal meningitis	.....	.....	.....	.....	.....	.....	.....	.....
109	62	Locomotor ataxia	1	.23	.....	.....	.....	.....	.20	.0
110-115	63	Other diseases of spinal cord	2	.46	.....	.....	.....	.....	.65	.1
116	64	Cerebral hemorrhage, apoplexy	1	.23	.....	.....	1	.21	.27	.0
117-119	66	Paralysis without specified cause	3	.68	.....	.....	.....	.....	.42	.1
120-126	67-68	Mental alienation	8	1.82	.....	.....	.....	.....	.84	.1
127	69	Epilepsy	3	.68	.....	.....	.....	.....	.69	.1
129-133	73	Neuralgia and neuritis	51	11.61	.....	.....	.....	.....	3.37	.7
138-141	75a	Conjunctivitis	20	4.55	.....	.....	.....	.....	.36	.
142	75b	Trachoma	1	.23	.....	.....	.....	.....	.12	.
166	77	Pericarditis	.....	.....	.....	.....	.....	.....	.....	.....
167	78	Acute endocarditis	.....	.....	.....	.....	.....	.....	.....	.....
169-174	79	Organic heart disease	10	2.28	.....	.....	2	.41	.64	.
175	80	Angina pectoris	1	.23	.....	.....	.....	.....	.01	.
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	4	.91	.....	.....	.....	.....	.52	.
178-179	82	Embolism and thrombosis	.....	.....	.....	.....	.....	.....	.....	.....
181	83b	Hemorrhoids	29	6.60	.....	.....	.....	.....	1.69	.

ratios per 1,000 of mean strength, for the Army; separately for officers, total enlisted (includ-
troops) and grand total, year 1915.

Army, enlisted men (including Porto Rican troops and Philippine Scouts).								Army (entire, officers and enlisted men including Porto Rican troops and Philippine Scouts).							
S. G. O., 99,448—A. G. O., 100,915.								S. G. O., 103,842—A. G. O., 105,788.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
7	0.07	.....	.....	.....	.....	1.33	0.01	8	0.08	.....	.....	.....	.....	1.64	0.02
8	.08	.....	.....	.....	.....	1.13	.01	9	.09	.....	.....	.....	.....	1.23	.01
3	.03	.....	.....	.....	.....	.13	.00	3	.03	.....	.....	.....	.....	.13	.00
2,560	25.74	.....	.....	2	0.02	53.82	.54	2,613	25.16	.....	.....	2	0.02	55.99	.54
617	6.20	.....	.....	2	.02	15.74	.16	629	6.06	.....	.....	2	.02	16.37	.16
10	.10	.....	.....	.....	.....	.66	.01	14	.13	.....	.....	.....	.....	1.06	.01
19	.19	.....	.....	.....	.....	.33	.00	19	.18	.....	.....	.....	.....	.33	.00
1,719	17.29	.....	.....	.....	.....	33.31	.33	1,748	16.83	.....	.....	.....	.....	34.27	.33
195	1.96	.....	.....	.....	.....	3.79	.04	203	1.95	.....	.....	.....	.....	3.97	.04
5	.05	.....	.....	.....	.....	.48	.00	5	.05	.....	.....	.....	.....	.48	.00
377	3.79	.....	.....	.....	.....	4.84	.05	377	3.63	.....	.....	.....	.....	4.84	.05
641	6.45	8	0.08	22	.22	39.34	.40	643	6.19	8	0.08	22	.21	39.50	.38
50	.50	.....	.....	1	.01	4.78	.05	52	.50	.....	.....	1	.01	4.89	.05
61	.61	.....	.....	1	.01	2.62	.03	66	.64	.....	.....	1	.01	2.81	.03
3,207	32.25	.....	.....	4	.04	43.31	.44	3,473	33.44	.....	.....	4	.04	46.81	.45
2	.02	.....	.....	1	.01	.03	.00	2	.02	.....	.....	1	.01	.03	.00
1	.01	.....	.....	.....	.....	.01	.00	1	.01	.....	.....	.....	.....	.01	.00
253	2.54	5	.05	3	.03	18.08	.18	279	2.69	5	.05	3	.03	20.13	.19
38	.38	.....	.....	.....	.....	2.03	.02	39	.38	.....	.....	.....	.....	2.05	.02
175	1.76	5	.05	2	.02	14.35	.14	197	1.90	5	.05	2	.02	16.28	.16
40	.40	.....	.....	1	.01	1.70	.02	43	.41	.....	.....	1	.01	1.80	.02
23	.23	1	.01	1	.01	.84	.01	24	.23	1	.01	1	.01	.90	.01
1,773	17.83	.....	.....	.....	.....	28.81	.29	1,865	17.96	.....	.....	.....	.....	30.47	.29
77	.77	.....	.....	.....	.....	3.33	.03	78	.75	.....	.....	.....	.....	3.86	.03
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
975	9.80	.....	.....	.....	.....	45.54	.46	982	9.46	.....	.....	.....	.....	45.78	.44
7	.07	.....	.....	7	.07	.19	.00	8	.08	.....	.....	8	.08	.21	.00
2	.02	.....	.....	.....	.....	.04	.00	2	.02	.....	.....	.....	.....	.15	.00
354	3.56	196	1.94	31	.31	171.27	1.72	362	3.49	196	1.94	31	.29	178.08	1.71
325	3.27	186	1.84	23	.23	164.69	1.65	332	3.20	186	1.84	23	.22	171.33	1.65
4	.04	.....	.....	4	.04	.61	.01	4	.04	.....	.....	4	.04	.61	.01
25	.25	10	.10	4	.04	5.98	.05	26	.25	10	.10	4	.04	6.14	.05
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
0,295	103.52	81	.80	6	.06	459.49	4.62	10,315	99.33	81	.80	6	.06	461.92	4.45
2,041	20.52	47	.47	4	.04	128.98	1.30	2,049	19.73	47	.47	4	.04	130.72	1.26
2,222	22.34	2	.02	.....	.....	83.30	.84	2,224	21.42	2	.02	.....	.....	83.47	.80
6,032	60.66	32	.32	2	.02	247.22	2.49	6,042	58.18	32	.32	2	.02	247.73	2.39
22	.22	5	.05	9	.09	4.76	.05	23	.22	5	.05	10	.09	4.80	.05
135	1.36	.....	.....	1	.01	3.86	.04	136	1.31	.....	.....	1	.01	4.25	.04
548	5.52	19	.19	.....	.....	37.93	.38	564	5.43	19	.19	.....	.....	38.13	.37
455	4.58	5	.05	.....	.....	26.89	.27	466	4.49	5	.05	.....	.....	27.36	.26
93	.94	14	.14	.....	.....	11.04	.11	98	.94	14	.14	.....	.....	11.77	.11
14	.14	2	.02	4	.04	1.67	.02	16	.15	2	.02	4	.04	1.78	.02
24	.24	10	.10	.....	.....	6.22	.06	25	.24	10	.10	.....	.....	6.32	.06
1,297	13.04	24	.24	6	.06	19.91	.20	1,317	12.68	24	.24	6	.06	20.59	.20
4	.04	.....	.....	.....	.....	.44	.00	4	.04	.....	.....	.....	.....	.44	.00
44	.44	9	.09	.....	.....	3.38	.03	44	.42	9	.09	.....	.....	3.38	.03
2	.02	2	.02	1	.01	1.05	.01	2	.02	2	.02	1	.01	1.05	.01
26	.26	7	.07	10	.10	3.90	.04	26	.25	7	.07	10	.09	3.90	.04
13	.13	3	.03	.....	.....	3.20	.03	14	.13	3	.03	.....	.....	3.40	.03
9	.09	5	.05	1	.01	2.47	.02	11	.11	5	.05	1	.01	3.12	.03
8	.08	.....	.....	7	.07	.17	.00	9	.09	.....	.....	8	.08	.44	.00
26	.26	5	.05	1	.01	2.78	.03	29	.28	5	.05	1	.01	3.20	.03
372	3.74	329	3.26	5	.05	84.78	.85	380	3.66	329	3.26	5	.05	85.62	.82
117	1.18	66	.65	.....	.....	14.78	.13	120	1.16	66	.65	.....	.....	15.47	.15
495	4.98	25	.25	.....	.....	23.83	.24	546	5.26	25	.25	.....	.....	27.29	.26
454	4.57	2	.02	.....	.....	9.15	.09	474	4.56	2	.02	.....	.....	9.51	.09
20	.20	1	.01	.....	.....	1.74	.02	21	.20	1	.01	.....	.....	1.86	.02
8	.08	.....	.....	2	.02	.69	.01	8	.08	.....	.....	2	.02	.69	.01
9	.09	2	.02	3	.03	.79	.01	9	.09	2	.02	3	.03	.79	.01
107	1.08	47	.47	22	.22	16.22	.16	117	1.13	47	.47	24	.23	16.87	.16
10	.10	1	.01	2	.02	.27	.00	11	.11	1	.01	2	.02	.28	.00
14	.14	4	.04	7	.07	2.75	.03	18	.17	4	.04	7	.07	3.31	.03
3	.03	2	.02	1	.01	.62	.01	3	.03	2	.02	1	.01	.62	.01
548	5.51	.....	.....	.....	.....	15.81	.16	577	5.56	.....	.....	.....	.....	17.48	.17

TABLE No. 68½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with*
ing American, Porto Rican, and Philippine

Serial Nos.	International classification.		Officers, Army.							
		Mean strength	S. G. O., 4,394—A. G. O., 4,873.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
183	83d	Varicose veins	3	0.68					0.18	0.04
184	83e	Variocele	1	.23					.03	.01
185–187	84	Diseases of the lymphatic system	4	.91					.11	.02
193–199	86	Diseases of the nasal fossæ	130	29.59					1.71	.39
200–202	87	Diseases of the larynx	20	4.55					.26	.0
203–204	88	Diseases of the thyroid body								
205–206	89–90	Bronchitis	186	42.33					2.94	.6
207	91	Broncho-pneumonia	6	1.37					.63	.1
208	92	Pneumonia	5	1.14			2	0.41	.34	.0
209–215	93	Pleurisy	9	2.05					.49	.1
216–217	94	Pulmonary congestion and pulmonary apoplexy								
219	96	Asthma	5	1.14					.11	.0
220	97	Pulmonary emphysema	1	.23					.16	.0
221	98a	Hæmoptysis								
222	98b	Hay fever								
224–227	99a	Diseases of the teeth and gums	28	6.37					.69	.1
228–231	99b	Other diseases of the mouth and annexa	5	1.14					.07	.0
232–236	100	Diseases of the pharynx	139	31.63					2.01	.4
238	102	Ulcer of stomach	8	1.82			1	.21	1.43	.3
239–244	103	Other diseases of stomach (cancer excepted)	57	12.97					.88	.2
245–253	105	Diarrhea and enteritis	172	39.14					3.68	.8
254	106	Ankylostomiasis								
255–259	107	Intestinal parasites	2	.46					.01	.0
260	108	Appendicitis	60	13.65					4.26	.9
261–263	109	Hernia	13	2.96					1.53	.3
264–267	110a	Diseases of the anus and fecal fistula	9	2.05					.60	.1
268–272	110b	Other diseases of the intestines	88	20.03					1.96	.4
275	113	Cirrhosis of liver	1	.23					.20	.0
276	114	Biliary calculi								
277–281	115	Other diseases of liver and gall bladder	17	3.87					1.21	.2
283–284	117	Simple peritonitis								
288	119	Acute nephritis	5	1.14					.24	.
289–291	120	Bright's disease	17	3.87					2.73	.
293–299	122	Other diseases of the kidney and annexa	7	1.59					.62	.1
303–306	124	Diseases of the bladder	6	1.37					.26	.
304	124b	Enuresis								
307–309	125	Diseases of the urethra, urinary abscess, etc	4	.91					.17	.
310–312	126	Diseases of the prostate	2	.46					.54	.1
313–319	127	Diseases of the male genital organs (nonvenereal)	10	2.28					.23	.
322–323	143	Furuncle and carbuncle	39	8.87					.72	.
324–325	144	Acute abscess and cellulitis	28	6.38					.78	.
352–357	146	Diseases of the bones	12	2.73					1.35	.
358–360	147	Diseases of the joints	18	4.10					1.50	.
367	147g	Flat foot	3	.68					.17	.
372	150	Congenital malformations	4	.91					6.71	.
373–374	154	Senility								
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	8	1.82					.12	.
379	189Ba	Under observation, undiagnosed and unknown	15	3.41			1	.21	2.77	.
380	189Bb	Malingering								

ratios per 1,000 of mean strength, for the Army: separately for officers, total enlisted (includ-
troops) and grand total, year 1915—Continued.

Army, enlisted men (including Porto Rican troops and Philippine Scouts).								Army (entire), officers and enlisted men (including Porto Rican troops and Philippine Scouts).							
S. G. O., 99,148—A. G. O., 100,915.								S. G. O., 103,842—A. G. O., 105,788.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
65	0.65	3	0.03			4.06	0.04	68	0.65	3	0.03			4.24	0.04
245	2.46	2	.02			12.74	.13	246	2.37	2	.02			12.78	.12
666	6.70	2	.02			35.01	.35	670	6.45	2	.02			35.12	.34
1,444	14.52	3	.03			22.45	.23	1,574	15.16	3	.03			24.16	.23
249	2.50	1	.01			4.98	.05	269	2.59	1	.01			5.24	.05
24	.24	7	.07			3.49	.04	24	.23	7	.07			3.49	.03
3,437	34.56	5	.05	1	0.01	61.86	.62	3,623	34.89	5	.05	1	0.01	64.80	.62
62	.62	1	.01	6	.06	4.47	.04	68	.65	1	.01	6	.06	5.10	.05
236	2.37			30	.30	17.31	.17	241	2.32			32	.30	17.65	.17
272	2.74	7	.07	3	.03	19.66	.20	281	2.71	7	.07	3	.03	20.09	.19
2	.02					.04	.00	2	.02					.04	.00
89	.89	15	.15			6.01	.06	94	.91	15	.15			6.12	.06
2	.02					.08	.00	3	.03					.24	.00
8	.08					.48	.00	8	.08					.48	.00
4	.04					.05	.00	4	.04					.05	.00
521	5.24	1	.01			9.51	.10	549	5.29	1	.01			10.20	.10
89	.89					2.27	.02	94	.91					2.34	.02
6,116	61.50	1	.01	1	.01	87.24	.88	6,255	60.23	1	.01	1	.01	89.25	.86
23	.23	5	.05	1	.01	4.10	.04	31	.30	5	.05	2	.02	5.53	.05
1,145	11.51	7	.07	2	.02	20.72	.21	1,202	11.57	7	.07	2	.02	21.60	.21
3,158	31.76	1	.01	4	.04	40.74	.41	3,330	32.07	1	.01	4	.04	44.42	.43
97	.98	2	.02	1	.01	3.88	.04	97	.93	2	.02	1	.01	3.88	.04
129	1.30					2.28	.02	131	1.26					2.30	.02
819	8.24	4	.04	13	.13	58.80	.59	879	8.46	4	.04	13	.12	63.06	.61
357	3.59	19	.19	3	.03	35.46	.36	370	3.56	19	.19	3	.03	36.99	.36
82	.82					4.63	.05	91	.88					5.23	.05
3,108	31.25	6	.06			39.47	.40	3,196	30.78	6	.06			41.43	.40
5	.05	1	.01	1	.01	.66	.01	6	.06	1	.01	1	.01	.86	.01
10	.10	1	.01			1.10	.01	13	.13	1	.01			1.33	.01
394	3.96	2	.02	1	.01	18.31	.18	411	3.96	2	.02	1	.01	19.53	.19
1	.01			2	.02	.07	.00	1	.01			2	.02	.07	.00
34	.34			6	.06	2.19	.02	39	.38			6	.06	2.43	.02
57	.57	12	.12	10	.10	9.44	.09	74	.71	12	.12	10	.09	12.16	.12
27	.27	1	.01			3.36	.03	34	.33	1	.01			3.98	.04
196	1.97	33	.33			13.18	.13	202	1.95	33	.33			13.45	.13
109	1.10	33	.33			9.93	.10	109	1.05	33	.33			9.93	.10
143	1.44	1	.01			4.16	.04	147	1.42	1	.01			4.32	.04
15	.15	1	.01			1.45	.01	17	.16	1	.01			1.99	.02
433	4.35	1	.01			12.82	.13	443	4.27	1	.01			13.05	.13
1,758	17.68					30.47	.31	1,797	17.30					31.19	.30
1,485	14.94	1	.01	2	.02	38.23	.39	1,513	14.57	1	.01	2	.02	39.01	.37
252	2.53	7	.07	1	.01	15.33	.15	264	2.54	7	.07	1	.01	16.67	.16
396	3.99	25	.25			32.31	.32	414	3.99	25	.25			33.81	.33
253	2.54	118	1.17			32.43	.31	256	2.46	118	1.17			32.59	.31
372	3.74	2	.02			11.16	.11	376	3.62	2	.02			11.35	.11
2	.02					.03	.00	2	.02					.03	.00
223	2.24					4.45	.04	231	2.22					4.56	.04
84	.84			1	.01	4.28	.04	99	.95			2	.02	7.04	.07
35	.35					1.05	.01	35	.33					1.05	.01

TABLE NO. 68½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ing American, Porto Rican, and Philippine*

Serial Nos.	International classification.		Officers, Army.							
		Mean strength	S. G. O., 4,394—A. G. O., 4,873.							
		Causes of admission to sick report.	Admissions. Number.	Admissions. Ratio.	Discharges. Number.	Discharges. Ratio.	Deaths. Number.	Deaths. Ratio.	Noneffective. Number.	Noneffective. Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.								
426–434	155–163	Suicides, all					3	0.62		
435	164	Poisoning by food	12	2.73						
436	165a	Venomous bites and stings	2	.46						
437	165b	Other poisoning (deleterious gases excepted)								
438	166	Conflagration								
439	167	Burns (conflagrations excepted)	8	1.82						
440	168	Absorption of deleterious gases								
441	168a	Suffocation, strangulation								
442	169	Drowning, accidental								
443	170	Traumatism by firearms (other than specified)	5	1.14						
444	170a	Shot by sentry or guard								
445	171	Traumatism by cutting or piercing instruments	12	2.73						
446	172	Traumatism by fall	124	28.22			1	.21		
448	174	Traumatism by machines	1	.23						
449	175	Traumatism by other crushing	20	4.55			3	.62		
450	176	Injuries by animals	38	8.65						
452	178	Effects of excessive cold								
453	179	Effects of heat	5	1.14						
455	181	Effects of electricity								
456–458	182–184	Homicides, all								
459	185	Fractures, causes not specified								
460	186	Other external violence	115	26.17						
462–466		Killed or wounded in action	2	.46						
462		By bullet	2	.46						
		DISEASES AND INJURIES GROUPED.								
		General diseases	540	122.89			2	.41	23.11	5.2
	1-19	Epidemic diseases	469	106.74					11.05	2.5
	20-59	Other general diseases	71	16.16			2	.41	12.06	2.7
		Diseases of the nervous system and organs of special sense	197	44.83			1	.21	14.73	3.
	60–74	Of the nervous system	123	27.99			1	.21	11.46	2.
	75	Of the eye and its annexa	56	12.74					1.91	.
	76	Of the ear and its annexa	18	4.10					1.36	.
	77–85	Diseases of the circulatory system	55	12.52			2	.41	3.49	.
	86–98	Diseases of the respiratory system	363	82.61			2	.41	6.64	1.
	99–118	Diseases of the digestive system	604	137.46			3	.62	18.79	4.
	119–127	Diseases of the genito-urinary system	68	15.47					5.45	1.
	142-145	Diseases of the skin and cellular tissue	113	25.72					2.73	.
	146-149	Diseases of the organs of locomotion	107	24.35					6.71	1.
	150	Malformations, etc	4	.91					.09	.
	154	Diseases, results of old age								
	189	Ill-defined diseases	28	6.37			1	.21	2.91	.
		Total for disease	2,079	473.15			11	2.26	84.65	19.
	155–186	External causes	351	79.88			7	1.44	18.93	4.
		Total for disease and external causes	2,430	553.03			18	3.69	103.58	23.

ratios per 1,000 of mean strength, for the Army; separately for officers, total enlisted (includ-
roops) and grand total, year 1915—Continued.

Army, enlisted men (including Porto Rican troops and Philippine Scouts). S. G. O., 99,448—A. G. O., 100,915.								Army (entire), officers and enlisted men (including Porto Rican troops and Philippine Scouts). S. G. O., 103,842—A. G. O., 105,788.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
13	0.13			51	0.51			13	0.13			54	0.51		
323	3.25			1	.01			335	3.23			1	.01		
100	1.01							102	.98						
54	.54			5	.05			54	.52			5	.05		
2	.02							2	.02						
399	4.01	3	0.03	1	.01			407	3.92	3	0.03	1	.01		
2	.02							2	.02						
4	.04			3	.03			4	.04			3	.03		
				34	.34							34	.32		
283	2.85	28	.28	13	.13			288	2.77	28	.28	13	.12		
5	.05			2	.02			5	.05			2	.02		
1,054	10.60	6	.06	2	.02			1,066	10.26	6	.06	2	.02		
3.515	35.35	28	.28	8	.08			3,639	35.04	28	.28	9	.09		
78	.78	2	.02					79	.76	2	.02				
640	6.44	24	.24	26	.26			660	6.35	24	.24	29	.27		
1,154	11.60	9	.09	4	.04			1,192	11.48	9	.09	4	.04		
10	.10							10	.10						
142	1.43			1	.01			147	1.42			1	.01		
1	.01			1	.01			1	.01			1	.01		
9	.09			23	.23			9	.09			23	.22		
3	.03							3	.03						
5,091	51.22	14	.14	10	.10			5,209	50.16	14	.14	10	.09		
19	.19	3	.03	11	.11			21	.20	3	.03	11	.10		
19	.19	3	.03	11	.11			21	.20	3	.03	11	.10		
,140	232.68	368	3.65	101	1.00	968.41	9.74	23,680	228.04	368	3.65	103	.97	991.52	9.55
,362	104.20	16	.16	35	.35	254.52	2.56	10,831	104.30	16	.16	35	.33	265.58	2.56
,778	128.49	352	3.49	66	.65	713.88	7.18	12,849	123.73	352	3.49	68	.64	725.95	6.99
,023	30.40	515	5.11	25	.24	208.34	2.10	3.220	31.00	515	5.11	26	.25	223.07	2.15
,326	13.33	469	4.65	25	.24	151.17	1.52	1.449	13.95	469	4.65	26	.25	162.62	1.57
.047	10.53	26	.26			34.32	.35	1.103	10.62	26	.26			36.23	.35
650	6.54	20	.20			22.86	.23	668	6.43	20	.20			24.22	.23
,789	17.99	65	.64	37	.37	93.54	.94	1,844	17.76	65	.64	39	.37	97.03	.93
,847	58.80	41	.41	41	.41	141.68	1.42	6,210	59.80	41	.41	43	.41	148.32	1.43
,080	161.69	55	.55	32	.32	331.21	3.33	16,684	160.66	55	.55	35	.33	349.99	3.37
963	9.68	53	.53	17	.17	50.78	.51	1,031	9.93	53	.53	17	.16	56.23	.54
,851	58.83	8	.08	2	.02	144.10	1.45	5,961	57.42	8	.08	2	.02	146.84	1.41
,434	24.48	168	1.66	1	.01	120.27	1.21	2,541	24.47	168	1.66	1	.01	126.98	1.22
372	3.74	2	.02			11.16	.11	376	3.62	2	.02			11.25	.11
2	.02					.03	.00	2	.02					.03	.00
416	4.18			1	.01	10.74	.11	444	4.28			2	.02	13.66	.13
,917	602.50	1,275	12.63	257	2.55	2,080.26	20.92	61,996	597.02	1,275	12.63	268	2.53	2,164.91	20.85
,062	131.35	144	1.43	196	1.94	434.79	4.37	13,413	129.16	144	1.43	203	1.92	453.72	4.37
,979	733.84	1,419	14.06	453	4.49	2,515.04	25.29	75,409	726.19	1,419	14.06	471	4.45	2,618.63	25.22

TABLE No. 69.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with*
year

Serial Nos.	International classification.	Mean strength	Officers, Army.							
			S. G. O., 4,394—A. G. O., 4,873.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever	1	0.23					0.30	0.07
2	1a	Paratyphoid fever	1	.23					.10	.02
7-11	4	Malaria	53	12.06					2.18	.50
7		Estivo-autumnal fever	12	2.73					.63	.14
8		Malarial cachexia	4	.91					.40	.09
9		Quartan malarial fever								
10		Tertian malarial fever	29	6.60					.97	.22
11		Undetermined malarial fever	8	1.82					.18	.04
12	5	Smallpox and varioloid								
13	5b	Vaccinia								
14	6	Measles	2	.46					.10	.02
15	7	Scarlet fever	2	.46					.11	.0
17	9	Diphtheria	5	1.14					.18	.0
18	10	Influenza	266	60.54					3.50	.80
20	13	Cholera nostras								
21-23	14	Dysentery	26	5.92					2.05	.47
21		Bacillary	1	.23					.02	.00
22		Entamebic	22	5.01					1.93	.4
23		Unclassified	3	.68					.10	.02
27	18	Erysipelas	1	.23					.06	.0
29	19b	Dengue	92	20.94					1.66	.38
31	19 i	German measles	1	.23					.03	.0
34	19g	Mumps	7	1.59					.24	.0
37	20	Purulent infection and septicemia	1	.23			1	0.21	.02	.0
42-46	25	Mycoses								
49-57	28-34	Tuberculosis, all	8	1.82					6.81	1.5
49-51	28	Tuberculosis of lungs	7	1.60					6.65	1.5
52	29	Miliary tuberculosis, acute								
53-57	30-34	Tuberculosis of other organs	1	.23					.17	.0
59-74	37-38	Venereal diseases, all	20	4.55					2.43	.5
59-64	37	Syphilis	8	1.82					1.75	.4
65-67	38a	Soft chancre	2	.46					.17	.0
68-74	38b	Gonococcus infection	10	2.28					.51	.1
75-79	39-45	Cancer and other malignant tumors	1	.23			1	.21	.04	.0
80	46	Benign tumors	1	.23					.39	.0
81-85	47-48	Rheumatism, articular, all	16	3.64					1.21	.2
81-82	47	Acute articular rheumatism	11	2.50					.47	.1
83-85	48	Chronic articular rheumatism	5	1.14					.73	.1
87-88	50	Diabetes	2	.46					.11	.0
89	51	Exophthalmic goitre	1	.23					.15	.0
97-100	56	Alcoholism and results	20	4.55					.68	.1
101-102	57-58	Chronic occupational poisoning								
103-104	59	Other chronic poisoning, including drug habit								
107	61	Simple meningitis								
108	61a	Epidemic cerebrospinal meningitis								
109	62	Locomotor ataxia	1	.23					.20	.
110-115	63	Other diseases of spinal cord	2	.46					.65	.1
116	64	Cerebral hemorrhage, apoplexy	1	.23			1	.21	.27	.
117-119	66	Paralysis without specified cause	3	.68					.42	.
120-126	67-68	Mental alienation	8	1.82					.84	.
127	69	Epilepsy	3	.68					.69	.1
129-133	73	Neuralgia and neuritis	51	11.61					3.37	.7
138-141	75a	Conjunctivitis	20	4.55					.36	.
142	75b	Trachoma	1	.23					.12	.
166	77	Pericarditis								
167	78	Acute endocarditis								
169-174	79	Organic heart disease	10	2.28			2	.41	.64	.
175	80	Angina pectoris	1	.23					.01	.
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	4	.91					.52	.
178-179	82	Embolism and thrombosis								
181	83b	Hemorrhoids	29	6.60					1.69	.
183	83d	Varicose veins	3	.68					.18	.
184	83e	Varicocele	1	.23					.03	.
185-187	84	Diseases of the lymphatic system	4	.91					.11	.
193-199	86	Diseases of the nasal fossae	130	29.59					1.71	.
200-202	87	Diseases of the larynx	20	4.55					.26	.

ratios per 1,000 of mean strength, for the Army, officers and American troops for the 1915.

American troops, Army.								Officers and American troops, Army.							
S. G. O., 93,262—A. G. O., 94,729.								S. G. O., 97,656—A. G. O., 99,602.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
7	0.08					1.33	0.01	8	0.08					1.64	0.02
6	.06					.94	.01	7	.07					1.04	.01
2.113	22.66			2	0.02	45.08	.48	2.166	22.18			2	0.02	47.26	.48
535	5.74			2	.02	13.57	.15	547	5.60			2	.02	14.20	.15
8	.09					.61	.01	12	.12					1.01	.01
15	.16					.26	.00	15	.15					.26	.00
1.421	15.24					27.88	.30	1.450	14.85					28.85	.30
134	1.44					2.76	.03	142	1.45					2.95	.03
4	.04					.32	.00	4	.04					.32	.00
371	3.98					4.66	.05	371	3.80					4.66	.05
633	6.79	8	0.08	22	.23	39.03	.42	635	6.50	8	0.08	22	.22	39.13	.40
50	.54			1	.01	4.78	.05	52	.53			1	.01	4.80	.05
61	.65			1	.01	2.62	.03	66	.68			1	.01	2.81	.03
3,196	34.27			4	.04	43.03	.46	3.462	35.45			4	.04	46.53	.47
1	.01					.01	.00	1	.01					.01	.00
183	1.96	5	.05	2	.02	14.60	.16	209	2.14	5	.05	2	.02	16.65	17
17	.18					.87	.01	18	.18					.90	.01
138	1.48	5	.05	2	.02	12.55	.13	160	1.64	5	.05	2	.02	14.48	.15
28	.30					1.18	.01	31	.32					1.28	.01
23	.25	1	.01	1	.01	.84	.01	24	.25	1	.01	1	.01	.90	.01
1.629	17.47					24.49	.26	1.721	17.62					26.15	.27
75	.80					3.27	.04	76	.78					3.30	.03
958	10.27					41.61	.48	965	9.88					44.85	.46
7	.08			7	.07	.19	.00	8	.08			8	.08	.21	.00
2	.02					.04	.00	2	.02					.04	.00
328	3.52	170	1.79	31	.33	167.97	1.80	336	3.44	170	1.79	31	.31	174.78	1.79
299	3.20	160	1.69	23	.24	161.48	1.73	306	3.13	160	1.69	23	.23	168.13	1.72
4	.04			4	.04	.61	.01	4	.04			4	.04	.61	.01
25	.26	10	.10	4	.04	5.88	.06	26	.27	10	.10	4	.04	6.04	.06
10,045	107.71	78	.82	6	.06	145.42	1.78	10,065	103.07	78	.82	6	.06	147.85	4.59
1.992	21.36	47	.50	4	.04	125.23	1.34	2,000	20.48	47	.50	4	.04	126.98	1.30
2,186	23.44	2	.02			81.24	.87	2,188	22.41	2	.02			81.41	.83
5,867	62.91	29	.31	2	.02	238.95	2.56	5,877	60.18	29	.31	2	.02	239.46	2.45
22	.24	5	.05	9	.10	4.76	.05	23	.24	5	.05	10	.10	4.80	.05
119	1.28			1	.01	3.24	.03	120	1.23			1	.01	3.63	.04
542	5.82	19	.20			37.49	.41	558	5.71	19	.20			38.70	.40
451	4.84	5	.05			26.60	.29	462	4.73	5	.05			27.07	.28
91	.98	14	.15			10.89	.12	96	.98	14	.15			11.62	.12
14	.15	2	.02	4	.04	1.67	.02	16	.16	2	.02	4	0.4	1.78	.02
24	.26	10	.11			6.22	.07	25	.26	10	.11			6.37	.07
1,294	13.87	24	.25	6	.06	19.90	.21	1,314	13.46	24	.25	6	.06	20.58	.21
4	.04					.44	.00	4	.04					.44	.00
44	.47	9	.10			3.38	.04	44	.45	9	.10			3.38	.03
2	.02	2	.02	1	.01	1.05	.01	2	.02	2	.02	1	.01	1.05	.01
26	.28	7	.07	10	.11	3.90	.04	26	.27	7	.07	10	.10	3.90	.04
12	.13	3	.03			2.74	.03	13	.13	3	.03			2.94	.03
9	.10	5	.05	1	.01	2.47	.03	11	.11	5	.05	1	.01	3.12	.03
8	.09			7	.07	.17	.00	9	.09			8	.08	.44	.00
25	.27	4	.04			2.55	.03	28	.29	4	.04			2.97	.03
358	3.84	313	3.30	5	.05	83.69	.90	366	3.75	313	3.30	5	.05	84.53	.87
114	1.22	65	.69			14.62	.16	117	1.20	65	.69			15.31	.16
482	5.17	23	.24			22.87	.25	533	5.46	23	.24			26.24	.27
385	4.13	2	.02			8.13	.09	405	4.15	2	.02			8.49	.09
15	.16	1	.01			1.45	.02	16	.16	1	.01			1.58	.02
5	.05					.39	.00	5	.05					.39	.00
9	.10	2	.02	3	.03	.79	.01	9	.09	2	.02	3	.03	.79	.01
105	1.13	47	.50	22	.23	15.90	.17	115	1.18	47	.50	24	.24	16.54	.17
10	.11	1	.01	2	.02	.27	.00	11	.11	1	.01	2	.02	.28	.00
14	.15	4	.04	6	.06	2.79	.03	18	.18	4	.04	6	.06	3.31	.03
3	.03	2	.02	1	.01	.76	.01	3	.03	2	.02	1	.01	.76	.01
547	5.86					15.78	.17	576	5.90					17.47	.18
63	.68	2	.02			3.90	.04	66	.68	2	.02			4.08	.04
245	2.63	2	.02			12.74	.14	246	2.52	2	.02			12.77	.13
627	6.72	2	.02			33.46	.36	631	6.46	2	.02			33.57	.34
1,416	15.18	2	.02			22.09	.24	1,546	15.83	2	.02			23.80	.24
235	2.52	1	.01			4.57	.05	255	2.61	1	.01			4.84	.05

Table No. 69.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
1915—

Serial Nos.	International classification.		Officers, Army.							
		Mean strength	S. G. O., 4,394—A. G. O., 4,873.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
203-204	88	Diseases of the thyroid body								
205-206	89-90	Bronchitis	186	42.33					2.94	
207	91	Broncho-pneumonia	6	1.37					.63	
208	92	Pneumonia	5	1.14			2	0.41	.34	
209-215	93	Pleurisy	9	2.05					.49	
216-217	94	Pulmonary congestion and pulmonary apoplexy								
219	96	Asthma	5	1.14					.11	
220	97	Pulmonary emphysema	1	.23					.16	
221	98a	Haemoptysis								
222	98b	Hay fever								
224-227	99a	Diseases of the teeth and gums	28	6.37					.69	
228-231	99b	Other diseases of the mouth and annexa	5	1.14					.07	
232-236	100	Diseases of the pharynx	139	31.63					2.01	
238	102	Ulcer of stomach	8	1.82			1	.21	1.43	
239-244	103	Other diseases of stomach (cancer excepted)	57	12.97					.88	
245-253	105	Diarrhea and enteritis	172	39.14					3.68	
254	106	Ankylostomiasis								
255-259	107	Intestinal parasites	2	.46					.01	
260	108	Appendicitis	60	13.65					4.25	
261-263	109	Hernia	13	2.96					1.53	
264-267	110a	Diseases of the anus and fecal fistula	9	2.05					.60	
268-272	110b	Other diseases of the intestines	88	20.03					1.96	
275	113	Cirrhosis of liver	1	.23					.20	
276	114	Biliary calculi	3	.68					.24	
277-281	115	Other diseases of liver and gall bladder	17	3.87					1.21	
283-284	117	Simple peritonitis								
288	119	Acute nephritis	5	1.14					.24	
289-291	120	Bright's disease	17	3.87					2.73	
293-299	122	Other diseases of the kidney and annexa	7	1.59					.62	
303-306	124	Diseases of the bladder	6	1.37					.26	
304	124b	Enuresis								
307-309	125	Diseases of the urethra, urinary abscess, etc	4	.91					.17	
310-312	126	Diseases of the prostate	2	.46					.54	
313-319	127	Diseases of the male genital organs (nonvenereal)	10	2.28					.23	
322-323	143	Furuncle and carbuncle	39	8.87					.72	
324-325	144	Acute abscess and cellulitis	28	6.38					.78	
352-357	146	Diseases of the bones	12	2.73					1.35	
358-360	147	Diseases of the joints	18	4.10					1.50	
367	149g	Flat foot	3	.68					.17	
372	150	Congenital malformations	4	.91					.09	
373-374	154	Senility								
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	8	1.82					.12	
379	189Ba	Under observation, undiagnosed, and unknown	15	3.41			1	.21	2.77	
380	189Bb	Malingering								
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426-434	155-163	Suicides, all					3	.62		
435	164	Poisoning by food	12	2.73						
436	165a	Venomous bites and stings	2	.46						
437	165b	Other poisoning (deleterious gases excepted)								
439	167	Burns (conflagrations excepted)	8	1.82						
440	168	Absorption of deleterious gases								
441	168a	Suffocation, strangulation								

[1] Noneffectiveness for individual external causes not tabulated.

ios per 1,000 of mean strength, for the Army, officers and American troops for the year
ntinued.

American troops, Army.								Officers and American troops, Army.							
S. G. O., 93,262—A. G. O., 94,729.								S. G. O., 97,656—A. G. O., 99,602.							
dmissions.		Discharges.		Deaths.		Noneffective.		Admissions		Discharges.		Deaths.		Noneffective.	
	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
24	0.26	7	0.07			3.49	0.04	24	0.25	7	0.07			3.49	0.04
280	35.17	5	.05	1	0.01	59.24	.64	3,466	35.49	5	.05	1	0.01	62.18	.64
53	.57	1	.01	6	.06	4.05	.04	59	.60	1	.01	6	.06	4.68	.05
225	2.41			29	.31	16.40	.18	230	2.36			31	.31	16.74	.17
259	2.78	7	.07	3	.03	18.86	.20	268	2.74	7	.07	3	.03	19.35	.20
1	.01					.01	.00	1	.01					.01	.00
78	.84	14	.15			5.51	.06	83	.85	14	.15			5.62	.06
2	.02					.08	.00	3	.32					.24	.00
8	.09					.48	.01	8	.08					.48	.00
4	.04					.05	.00	4	.04					.05	.00
194	5.30	1	.01			9.12	.10	522	5.35	1	.01			9.81	.10
84	.90					2.15	.02	89	.91					2.22	.02
071	65.10	1	.01	1	.01	86.56	.93	6,210	63.59	1	.01	1	.01	88.57	.91
23	.25	5	.05	1	.01	4.10	.04	31	.32	5	.05	2	.02	5.53	.06
22	12.03	7	.07	2	.02	20.45	.22	1,179	12.07	7	.07	2	.02	21.33	.22
39	31.51	1	.01	4	.04	38.11	.41	3,111	31.86	1	.01	4	.04	41.79	.43
41	.44	1	.01			2.64	.03	41	.42	1	.01			2.64	.03
96	1.03					1.60	.02	2	.02					1.61	.02
15	8.74	4	.04	12	.13	58.64	.63	875	8.96	4	.04	12	.12	62.90	.64
53	3.79	19	.20	3	.03	35.90	.38	366	3.75	19	.20	3	.03	36.53	.37
76	.81					4.45	.05	85	.87					5.05	.05
72	29.72	6	.06			35.98	.39	2,860	29.29	6	.06			37.93	.39
5	.05	1	.01	1	.01	.66	.01	6	.06	1	.01	1	.01	.86	.01
9	.10	1	.01			1.08	.01	12	.12	1	.01			1.32	.01
89	4.17	2	.02	1	.01	17.33	.19	406	4.16	2	.02	1	.01	18.54	.19
1	.01			2	.02	.07	.00	1	.01			2	.02	.07	.00
32	.34			6	.06	2.09	.02	37	.38			6	.06	2.33	.02
54	.58	12	.13	9	.10	9.26	.10	71	.73	12	.13	9	.09	11.99	.12
27	.29	1	.01			3.36	.04	34	.35	1	.01			3.98	.04
96	2.10	33	.35			13.18	.14	202	2.07	33	.35			13.15	.14
09	1.17	33	.35			9.93	.11	109	1.12	33	.35			9.93	.10
13	1.53	1	.01			4.15	.04	147	1.51	1	.01			4.32	.04
15	.16	1	.01			1.45	.02	17	.17	1	.01			1.99	.02
03	4.32	1	.01			11.89	.13	413	4.23	1	.01			12.12	.12
25	17.42					27.50	.30	1,664	17.04					28.22	.29
53	13.14	1	.01	2	.02	31.74	.34	1,281	13.12	1	.01	2	.02	32.52	.33
36	2.53	6	.06	1	.01	14.52	.16	248	2.54	6	.06	1	.01	15.87	.16
82	4.10	23	.24			31.07	.33	400	4.10	23	.24			32.57	.33
53	2.71	118	1.25			32.44	.35	256	2.62	118	1.25			32.59	.33
57	3.94	1	.01			11.00	.12	371	3.80	1	.01			11.08	.11
2	.02					.03	.00	2	.02					.03	.00
36	1.99					3.68	.04	194	1.99					3.80	.04
79	.85			1	.01	3.97	.04	94	.96			2	.02	6.73	.07
35	.38					1.05	.01	35	.36					1.05	.01
3	.14			50	.53			13	.13			53	.53		
21	3.44			1	.01			333	3.41			1	.01		
06	1.03							98	1.00						
63	.57			5	.05			53	.54			5	.05		
54	4.12	3	.03	1	.01			392	4.01	3	.03	1	.01		
2	.02							2	.02						
3	.03			3	.03			3	.03			3	.03		

TABLE No. 69.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
1915—

Serial Nos.	International classification.		Officers, Army.							
		Mean strength	S. G. O., 4,394—A. G. O., 4,873.							
			Admissions.		Discharges.		Deaths.		Noneffective.	
		Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.								
442	169	Drowning, accidental								
443	170	Traumatism by firearms (other than specified)	5	1.14						
444	170a	Shot by sentry or guard								
445	171	Traumatism by cutting or piercing instruments	12	2.73						
446	172	Traumatism by fall	124	28.22			1	0.21		
448	174	Traumatism by machines	1	.23						
449	175	Traumatism by other crushing	20	4.55			3	.62		
450	176	Injuries by animals	38	8.65						
452	178	Effects of excessive cold								
453	179	Effects of heat	5	1.14						
455	181	Effects of electricity								
456–458	182–4	Homicides, all								
460	186	Other external violence	115	26.17						
462–466		Killed or wounded in action	2	.46						
462		By bullet	2	.46						
		DISEASES AND INJURIES GROUPED.								
		General diseases	540	122.89			2	.41	25.11	5.2
	1–19	Epidemic diseases	469	106.74					11.05	2.5
	20–59	Other general diseases	71	16.16			2	.41	12.06	2.7
		Diseases of the nervous system and organs of special sense	197	44.83			1	.21	14.73	3.3
	60–74	Of the nervous system	123	27.99			1	.21	11.46	2.6
	75	Of the eye and its annexa	56	12.74					1.91	.4
	76	Of the ear and its annexa	18	4.10					1.36	.3
	77–85	Diseases of the circulatory system	55	12.52			2	.41	3.49	.7
	86–98	Diseases of the respiratory system	363	82.61			2	.41	6.64	1.5
	99–118	Diseases of the digestive system	604	137.46			3	.62	18.79	4.2
	119–127	Diseases of the genito-urinary system	68	15.47					5.45	1.2
	142-145	Diseases of the skin and cellular tissue	113	25.72					2.73	.6
	146-149	Diseases of the organs of locomotion	107	24.35					6.71	1.5
	150	Malformations, etc	4	.91					.09	.0
	154	Diseases, results of old age								
	189	Ill-defined diseases	28	6.37			1	.21	2.91	.6
		Total for disease	2,079	473.15			11	2.26	84.65	19.2
	155-186	External causes	351	79.88			7	1.44	18.93	4.3
		Total for disease and external causes	2,430	553.03			18	3.69	103.58	23.5

os per 1,000 of mean strength, for the Army, officers and American troops for the year ntinued.

American troops, Army.								Officers and American troops, Army.							
S. G. O., 93,262—A. G. O., 94,729.								S. G. O., 97,656—A. G. O., 99,602.							
missions.		Discharges.		Deaths.		Noneffective.		Admissions		Discharges.		Deaths.		Noneffective.	
	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
......	......	......	......	34	0.36	......	......	......	......	......	......	34	0.34	......	......
75	2.95	27	0.29	12	.13	......	......	280	2.87	27	0.29	12	.12	......	......
5	.05	......	......	2	.02	......	......	5	.05	......	......	2	.02	......	......
86	10.57	6	.06	1	.01	......	......	998	10.22	6	.06	1	.01	......	......
72	36.16	26	.27	8	.08	......	......	3,496	35.80	26	.27	9	.09	......	......
76	.81	2	.02	......	......	......	......	77	.79	2	.02	......	......	......	......
21	6.66	24	.25	26	.27	......	......	641	6.56	24	.25	29	.29	......	......
50	12.33	9	.10	4	.04	......	......	1,188	12.16	9	.10	4	.04	......	......
10	.11	......	......	......	......	......	......	10	.10	......	......	......	......	......	......
27	1.36	......	......	......	......	......	......	132	1.35	......	......	......	......	......	......
1	.01	......	......	1	.01	......	......	1	.01	......	......	1	.01	......	......
7	.07	......	......	21	.22	......	......	7	.07	......	......	21	.21	......	......
45	51.92	14	.15	10	.11	......	......	4,960	50.79	14	.15	10	.10	......	......
18	.19	1	.01	11	.12	......	......	20	.20	1	.01	11	.11	......	......
18	.19	1	.01	11	.12	......	......	20	.20	1	.01	11	.11	......	......
01	236.98	337	3.56	98	1.03	929.50	9.97	22,641	231.84	337	3.56	100	1.00	952.61	9.75
26	103.21	14	.15	33	.35	234.47	2.51	10,095	103.37	14	.15	33	.33	245.52	2.51
75	133.76	323	3.41	65	.69	695.03	7.45	12,546	128.47	323	3.41	67	.67	707.10	7.24
54	30.60	493	5.20	24	.25	202.50	2.17	3,051	31.24	493	5.20	25	.25	217.23	2.22
90	13.83	449	4.74	24	.25	148.20	1.59	1,413	14.47	449	4.74	25	.25	159.66	1.63
40	10.08	24	.25	......	......	32.02	.34	996	10.20	24	.25	......	......	33.93	.35
24	6.69	20	.21	......	......	22.28	.24	642	6.57	20	.21	......	......	23.64	.24
39	18.65	64	.68	34	.36	91.13	.98	1,794	18.37	64	.68	36	.36	94.61	.97
0	60.04	38	.40	40	.42	135.48	1.45	5,963	61.06	38	.40	42	.42	142.12	1.46
16	164.22	54	.57	30	.32	319.93	3.43	15,920	163.03	54	.57	33	.33	338.72	3.47
27	9.94	53	.56	16	.17	49.57	.53	995	10.19	53	.56	16	.16	55.02	.56
3	56.65	7	.07	2	.02	126.49	1.36	5,396	55.25	7	.07	2	.02	129.21	1.32
57	25.27	165	1.74	1	.01	117.46	1.26	2,464	25.23	165	1.74	1	.01	124.17	1.27
57	3.94	1	.01	......	......	10.99	.12	371	3.80	1	.01	......	......	11.08	.11
2	.02	......	......	......	......	.03	.00	2	.02	......	......	......	......	.03	.00
4	4.01	......	......	1	.01	9.67	.10	402	4.12	......	......	2	.02	12.58	.13
20	610.32	1,212	12.79	246	2.60	1,992.74	21.37	58,999	604.15	1,212	12.79	257	2.58	2,077.39	21.27
22	134.27	139	1.47	190	2.01	420.47	4.51	12,873	131.82	139	1.47	197	1.98	439.41	4.50
2	744.59	1,351	14.26	436	4.60	2,413.21	25.88	71,872	735.97	1,351	14.26	454	4.56	2,516.80	25.77

TABLE No. 70.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with*
colored,

Serial No.	International classification.		Army, American troops, white and colored.							
		Mean strength	S. G. O., 93,262—A. G. O., 94,729.							
			Admissions.		Discharges.		Deaths.		Noneffective.	
		Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever	7	0.08					1.33	0.01
2	1a	Paratyphoid fever	6	.06					.94	.01
7-11	4	Malaria	2,113	22.66			2	0.02	45.08	.48
7		Estivo-autumnal fever	535	5.74			2	.02	13.57	.15
8		Malarial cachexia	8	.09					.61	.01
9		Quartan malarial fever	15	.16					.26	.00
10		Tertian malarial fever	1,421	15.24					27.88	.30
11		Undetermined malarial fever	134	1.44					2.76	.03
12	5	Smallpox and varioloid	4	.04					.32	.00
13	5b	Vaccinia	371	3.98					4.66	.05
14	6	Measles	633	6.79	8	0.08	22	.23	39.03	.42
15	7	Scarlet fever	50	.54			1	.01	4.78	.05
17	9	Diphtheria	61	.65			1	.01	2.62	.03
18	10	Influenza	3,196	34.27			4	.04	43.03	.46
20	13	Cholera nostras	1	.01					.01	.00
21-23	14	Dysentery	183	1.96	5	.05	2	.02	14.60	.16
21		Bacillary	17	.18					.87	.01
22		Entamœbic	138	1.48	5	.05	2	.02	12.55	.13
23		Unclassified	28	.30					1.18	.01
27	18	Erysipelas	23	.25	1	.01	1	.01	.84	.01
29	19b	Dengue	1,629	17.47					24.49	.26
31	19d	German measles	75	.80					3.27	.04
34	19g	Mumps	958	10.27					44.61	.48
37	20	Purulent infection and septicemia	7	.08			7	.07	.19	.00
42-46	25	Mycoses	2	.02					.04	.00
49-57	28-34	Tuberculosis, all	328	3.52	170	1.79	31	.33	167.97	1.80
49-51	28	Tuberculosis of lungs	299	3.20	160	1.69	23	.24	161.48	1.73
52	29	Miliary tuberculosis, acute	4	.04			4	.04	.61	.01
53-57	30-34	Tuberculosis of other organs	25	.25	10	.10	4	.04	5.88	.06
59-74	37-38	Venereal diseases, all	10,045	107.71	78	.82	6	.06	445.42	4.78
59-64	37	Syphilis	1,992	21.36	47	.50	4	.04	125.23	1.34
65-67	38a	Soft chancre	2,186	23.44	2	.02			81.24	.87
68-74	38b	Gonococcus infection	5,867	62.91	29	.31	2	.02	238.95	2.5
75-79	39-45	Cancer and other malignant tumors.	22	.24	5	.05	9	.10	4.76	.0
80	46	Benign tumors	119	1.28			1	.01	3.24	.0
81-85	47-48	Rheumatism, articular, all	542	5.82	19	.20			37.49	.4
81-82	47	Acute articular rheumatism	451	4.84	5	.05			26.60	.2
83-85	48	Chronic articular rheumatism	91	.98	14	.15			10.89	.1
87-88	50	Diabetes	14	.15	2	.02	4	.04	1.67	.0
89	51	Exophthalmic goitre	24	.26	10	.11			6.22	.0
97-100	56	Alcoholism and results	1,294	13.87	24	.25	6	.06	19.90	.2
101-102	57-58	Chronic occupational poisoning	4	.04					.44	.0
103-104	59	Other chronic poisoning, including drug habit.	44	.47	9	.10			3.38	.0
107	61	Simple meningitis	2	.02	2	.02	1	.01	1.05	.0
108	61a	Epidemic cerebrospinal meningitis	26	.28	7	.07	10	.11	3.90	.0
109	62	Locomotor ataxia	12	.13	3	.03			2.74	.0
110-115	63	Other diseases of spinal cord	9	.10	5	.05	1	.01	2.47	.0
116	64	Cerebral hemorrhage, apoplexy	8	.09			7	.07	.17	.0
117-119	66	Paralysis without specified cause	25	.27	4	.04			2.55	.0
120-126	67-68	Mental alienation	358	3.82	313	3.30	5	.05	83.69	.9
127	69	Epilepsy	114	1.22	65	.69			14.62	.1
129-133	73	Neuralgia and neuritis	482	5.17	23	.24			22.87	.2
138-141	75a	Conjunctivitis	385	4.13	2	.02			8.13	.0
142	75b	Trachoma	15	.16	1	.01			1.45	.0
166	77	Pericarditis	5	.05					.39	.0
167	78	Acute endocarditis	9	.10	2	.02	3	.03	.79	.0
169-174	79	Organic heart disease	105	1.13	47	.50	22	.23	15.90	.1
175	80	Angina pectoris	10	.11	1	.01	2	.02	.27	.0
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc.	14	.15	4	.04	6	.06	2.79	.0
178-179	82	Embolism and thrombosis	3	.03	2	.02	1	.01	.76	.
181	83b	Hemorrhoids	547	5.86					15.78	.1
183	83d	Varicose veins	63	.68	2	.02			3.90	.
184	83e	Varicocele	245	2.63	2	.02			12.74	.1
185-187	84	Diseases of the lymphatic system	627	6.72	2	.02			33.46	.

atios per 1,000 of mean strength, for the Army, American troops, enlisted men, white and
ear 1915.

Army, American troops, white.								Army, American troops, colored.							
S. G. O., 87,458—A. G. O., 88,925.								S. G. O., 5,804—A. G. O., 5,804.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
6	0.07					1.26	0.01	1	0.17					0.07	0.01
5	.06					.84	.01	1	.17					.09	.02
2,064	23.60			2	0.02	44.10	.50	49	8.44					.98	.17
531	6.07			2	.02	13.43	.15	4	.69					.14	.02
8	.09					.61	.01								
15	.17					.26	.00								
1,376	15.73					27.04	.31	45	7.75					.84	.14
134	1.53					2.76	.03							.00	.01
4	.05					.32	.00								
368	4.21					1.63	.05	3	.52					.03	.00
631	7.22	8	0.09	22	.25	38.95	.45	2	.34					.07	.01
50	.57			1	.01	4.78	.05								
46	.53			1	.01	2.20	.03	15	2.58					.43	.07
3,066	35.06			4	.04	41.21	.47	130	22.40					1.81	.31
1	.01					.01	.00								
180	2.06	5	.06	2	.02	13.80	.16	3	.52					.81	.14
17	.19					.87	.01								
135	1.54	5	.06	2	.02	11.74	.13	3	.52					.81	.14
28	.32					1.18	.01								
23	.26	1	.01	1	.01	.84	.01								
,230	14.06					19.05	.22	399	68.75					5.44	.94
72	.82					3.04	.03	3	.52					.22	.04
901	10.30					41.48	.47	57	9.82					3.13	.54
7	.08			7	.08	.19	.00								
2	.02					.04	.00								
301	3.44	153	1.72	21	.27	152.34	1.74	27	4.65	17	2.93	7	1.21	15.63	2.69
276	3.15	144	1.62	18	.20	146.74	1.68	23	3.96	16	2.75	5	.86	14.75	2.54
3	.03			3	.03	.60	.01	1	.17			1	.17	.01	.00
22	.25	9	.09	3	.03	5.00	.05	3	.52	1	.17	1	.17	.88	.16
,251	105.81	71	.80	4	.04	409.13	4.68	791	136.30	7	1.21	2	.34	36.29	6.25
,798	20.56	42	.47	2	.02	112.43	1.29	194	33.43	5	.86	2	.34	12.80	2.21
,068	23.65	1	.01			76.60	.88	118	20.33	1	.17			4.64	.80
,388	61.61	28	.31	2	.02	220.10	2.52	479	82.53	1	.17			18.85	3.25
20	.23	5	.06	8	.09	4.50	.05	2	.34	1	.17			.26	.04
112	1.28			1	.01	3.03	.03	7	1.21					.21	.04
518	5.92	19	.22			35.84	.41	24	4.13					1.65	.28
432	4.94	5	.06			25.67	.29	19	3.27					.93	.16
86	.98	14	.16			10.17	.12	5	.86					.72	.12
14	.16	2	.02	4	.04	1.67	.02								
24	.27	10	.11			6.22	.07								
,254	14.34	24	.27	6	.07	19.41	.22	40	6.89					.49	.08
4	.05					.44	.00								
42	.48	8	.09			3.11	.04	2	1.34	1	.17			.27	.05
2	.02	2	.02	1	.01	1.05	.01								
26	.30	6	.07	10	.11	3.52	.04			1	.17			.38	.07
12	.14	3	.03			2.74	.03								
8	.09	4	.04	1	.01	2.24	.03	1	.17	1	.17			.23	.04
8	.09			7	.08	.17	.00								
18	.21	1	.01			1.69	.02	7	1.21	3	.52			.86	.15
339	3.88	292	3.28	4	.04	77.64	.89	19	3.27	21	3.62	1	.17	6.05	1.04
108	1.23	61	.69			13.48	.15	6	1.03	4	.69			1.13	.20
451	5.16	23	.26			22.16	.25	31	5.34					.70	.12
353	4.04	1	.01			7.17	.08	32	5.51	1	.17			.96	.17
13	.15	1	.01			1.36	.02	2	.34					.09	.02
4	.05					.12	.00	1	.17					.27	.05
8	.09	2	.02	2	.02	.77	.01	1	.17			1	.17	.02	.00
99	1.13	43	.48	18	.20	14.25	.16	6	1.03	4	.69	4	.69	1.65	.29
10	.11	1	.01	2	.02	.27	.00								
12	.14	4	.04	4	.04	2.72	.03	2	.34			2	.34	.08	.01
3	.03	2	.02	1	.01	.62	.01								
484	5.53					14.06	.16	63	10.86					1.72	.30
61	.70	2	.02			3.79	.04	2	.34					.11	.02
238	2.72	2	.02			12.46	.14	7	1.21					.28	.05
594	6.79	2	.02			31.79	.36	33	5.69					1.67	.29

TABLE No. 70.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with colored, year*

Serial No.	International classification.	Mean strength	Army, American troops, white and colored.							
			S. G. O., 93,262—A. G. O., 94,729.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
193-199	86	Diseases of the nasal fossæ	1,416	15.18	2	.02			22.09	.24
200-202	87	Diseases of the larynx	235	2.52	1	.01			4.57	.05
203-204	88	Diseases of the thyroid body	24	.26	7	.07			3.49	.04
205-206	89-90	Bronchitis	3,280	35.17	5	.05	1	.01	59.24	.64
207	91	Broncho-pneumonia	53	.57	1	.01	6	.06	4.05	.04
208	92	Pneumonia	225	2.41			29	.31	16.40	.18
209-215	93	Pleurisy	259	2.78	7	.07	3	.03	18.86	.20
216-217	94	Pulmonary congestion and pulmonary apoplexy	1	.01					.01	.00
219	96	Asthma	78	.84	14	.15			5.51	.06
220	97	Pulmonary emphysema	2	.02					.08	.00
221	98a	Hæmoptysis	8	.09					.48	.01
222	98b	Hay fever	4	.04					.05	.00
224-227	99a	Diseases of the teeth and gums	494	5.30	1	.01			9.12	.10
228-231	99b	Other diseases of the mouth and annexa	84	.90					2.15	.02
232-236	100	Diseases of the pharynx	6,071	65.10	1	.01	1	.01	86.56	.93
238	102	Ulcer of stomach	23	.25	5	.05	1	.01	4.10	.04
239-244	103	Other diseases of stomach (cancer excepted)	1,122	12.03	7	.07	2	.02	20.45	.22
245-253	105	Diarrhea and enteritis	2,939	31.51	1	.01	4	.04	38.11	.41
254	106	Ankylostomiasis	41	.44	1	.01			2.64	.03
255-259	107	Intestinal parasites	96	1.03					1.60	.02
260	108	Appendicitis	815	8.74	4	.04	12	.13	58.64	.63
261-263	109	Hernia	353	3.79	19	.20	3	.03	35.00	.38
264-267	110a	Diseases of the anus and fecal fistula	76	.81					4.45	.05
268-272	110b	Other diseases of the intestines	2,772	29.72	6	.06			35.98	.39
275	113	Cirrhosis of liver	5	.05	1	.01	1	.01	.66	.01
276	114	Biliary calculi	9	.10	1	.01			1.08	.01
277-281	115	Other diseases of liver and gall bladder	389	4.17	2	.02	1	.01	17.33	.19
283-284	117	Simple peritonitis	1	.01			2	.02	.07	.00
288	119	Acute nephritis	32	.34			6	.06	2.09	.02
289-291	120	Bright's disease	54	.58	12	.13	9	.10	9.26	.10
293-299	122	Other diseases of the kidney and annexa	27	.29	1	.01			3.36	.04
303-306	124	Diseases of the bladder	196	2.10	33	.35			13.18	.14
304	124b	Enuresis	109	1.17	33	.35			9.93	.11
307-309	125	Diseases of the urethra, urinary abscess, etc	143	1.53	1	.01			4.15	.04
310-312	126	Diseases of the prostate	15	.16	1	.01			1.45	.02
313-319	127	Diseases of the male genital organs (nonvenereal)	403	4.32	1	.01			11.89	.13
322-323	143	Furuncle and carbuncle	1,625	17.42					27.50	.30
324-325	144	Acute abscess and cellulitis	1,253	13.44	1	.01	2	.02	31.74	.34
352-357	146	Diseases of the bones	236	2.53	6	.06	1	.01	14.52	.16
358-360	147	Diseases of the joints	382	4.10	23	.24			31.07	.3
367	149g	Flat foot	253	2.71	118	1.25			32.44	.3
372	150	Congenital malformations	367	3.94	1	.01			11.00	.1
373-374	154	Senility	2	.02					.03	.0
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	186	1.99					3.68	.0
379	189Ba	Under observation, undiagnosed and unknown	79	.85			1	.01	3.97	.0
380	189Bb	Malingering	35	.38					1.05	.0
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426-434	155-163	Suicides, all	13	.14			50	.53		
435	164	Poisoning by food	321	3.44			1	.01		
436	165a	Venomous bites and stings	96	1.03						
437	165b	Other poisoning (deleterious gases excepted)	53	.57			5	.05		
439	167	Burns (conflagrations excepted)	384	4.12	3	.03	1	.01		

[1] Noneffectiveness for individual external causes not tabulated.

atios per 1,000 of mean strength, for the Army, American troops, enlisted men, white and
915—Continued.

Army, American troops, white.								Army, American troops, colored.							
S. G. O., 87,458—A. G. O., 88,925.								S. G. O., 5,804—A. G. O., 5,804.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1,339	15.31	1	.01	....	....	21.09	.24	77	13.27	1	.17	....	....	1.00	.17
222	2.54	1	.01	....	....	4.23	.05	13	2.24	....	....	....	....	.34	.06
24	.27	7	.08	....	....	3.49	.04	....	....	....	....	....	....	....	....
3,066	35.06	5	.06	1	.01	55.47	.63	214	36.87	....	....	....	....	3.76	.65
51	.58	1	.01	4	.04	3.97	.05	2	.34	....	....	2	.34	.08	.01
205	2.34	....	....	27	.30	14.28	.16	20	3.45	....	....	2	.34	2.12	.36
241	2.76	7	.08	3	.03	18.30	.21	18	3.10	....	....	....	....	.56	.10
1	.01	....	....	....	....	.01	.00	....	....	....	....	....	....	....	....
74	.85	12	.13	....	....	5.26	.06	4	.69	2	.34	....	....	.25	.04
2	.02	....	....	....	....	.08	.00	....	....	....	....	....	....	....	....
8	.09	....	....	....	....	.48	.01	....	....	....	....	....	....	....	....
4	.05	....	....	....	....	.05	.00	....	....	....	....	....	....	....	....
463	5.29	1	.01	....	....	8.67	.10	31	5.34	....	....	....	....	.44	.08
79	.90	....	....	....	....	2.01	.02	5	.86	....	....	....	....	.15	.03
5,880	67.24	1	.01	1	.01	86.12	.98	191	32.91	....	....	....	....	3.18	.55
21	.24	5	.06	1	.01	4.05	.05	2	.34	....	....	....	....	.05	.01
1,030	11.78	7	.08	1	.01	19.08	.22	92	15.85	....	....	1	.17	1.37	.24
2,787	31.87	1	.01	4	.04	36.42	.42	152	26.19	....	....	....	....	1.69	.29
40	.46	1	.01	....	....	2.63	.03	1	.17	....	....	....	....	.01	.00
92	1.05	....	....	....	....	1.55	.02	4	.69	....	....	....	....	.05	.01
773	8.84	4	.04	11	.12	54.88	.63	42	7.24	....	....	1	.17	3.77	.65
340	3.89	18	.20	2	.02	33.50	.38	13	2.24	1	.17	1	.17	1.50	.26
66	.75	....	....	....	....	4.61	.05	10	1.72	....	....	....	....	.39	.07
2,507	28.67	5	.06	....	....	32.58	.37	265	45.66	1	.17	....	....	3.40	.59
5	.06	1	.01	1	.01	.66	.01	....	....	....	....	....	....	....	....
9	.10	1	.01	....	....	.08	.01	....	....	....	....	....	....	....	....
370	4.23	2	.02	1	.01	16.10	.18	19	3.27	....	....	....	....	1.24	.21
1	.01	....	....	2	.02	.07	.00	....	....	....	....	....	....	....	....
29	.33	....	....	5	.06	1.83	.02	3	.52	....	....	1	.17	.26	.05
51	.58	12	.13	9	.10	8.91	.10	3	.52	....	....	....	....	.36	.06
25	.29	1	.01	....	....	3.26	.04	2	.34	....	....	....	....	.10	.02
191	2.18	33	.37	....	....	13.11	.15	5	.86	....	....	....	....	.07	.01
107	1.22	33	.37	....	....	9.90	.11	2	.34	....	....	....	....	.03	.00
124	1.42	1	.01	....	....	3.33	.04	19	3.27	....	....	....	....	.81	.14
14	.16	1	.01	....	....	1.45	.02	1	.17	....	....	....	....	.00	.00
373	4.27	1	.01	....	....	11.01	.13	30	5.17	....	....	....	....	.88	.15
,575	18.00	....	....	....	....	26.72	.31	50	8.62	....	....	....	....	.78	.13
,183	13.53	1	.01	2	.02	29.76	.34	70	12.06	....	....	....	....	1.99	.35
217	2.48	5	.06	1	.01	13.71	.16	19	3.27	1	.17	....	....	.81	.14
367	4.20	21	.24	....	....	29.04	.33	15	2.58	2	.34	....	....	2.03	.35
233	2.66	107	1.20	....	....	27.57	.32	20	3.45	11	1.90	....	....	4.86	.84
324	3.70	1	.01	....	....	9.33	.11	43	7.41	....	....	....	....	1.66	.29
2	.02	....	....	....	....	.03	.00	....	....	....	....	....	....	....	....
165	1.89	....	....	....	....	3.23	.04	21	3.62	....	....	....	....	.45	.08
76	.87	....	....	1	.01	3.44	.04	3	.52	....	....	....	....	.53	.09
30	.34	....	....	....	....	.98	.01	5	.86	....	....	....	....	.07	.01
13	.15	....	....	50	.54	....	....	....	....	....	....	....	....	....	....
269	3.08	....	....	1	.01	....	....	52	8.96	....	....	....	....	....	....
95	1.09	....	....	....	....	....	....	1	.17	....	....	....	....	....	....
50	.57	....	....	5	.06	....	....	3	.52	....	....	....	....	....	....
375	4.29	3	.03	1	.01	....	....	9	1.55	....	....	....	....	....	....

TABLE No. 70.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with colored, year*

Serial No.	International classification.		Admissions.		Discharges.		Deaths.		Noneffective.	
			Army, American troops, white and colored.							
		Mean strength	S. G. O., 93,262—A. G. O., 94,729.							
		Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.								
440	168	Absorption of deleterious gases	2	0.02			3	0.03		
441	168a	Suffocation, strangulation	3	.03			34	.36		
442	169	Drowning, accidental								
443	170	Traumatism by firearms (other than specified)	275	2.95	27	0.29	12	.13		
444	170a	Shot by sentry or guard	5	.05			2	.02		
445	171	Traumatism by cutting or piercing instruments	986	10.57	6	.06	1	.01		
446	172	Traumatism by fall	3,372	36.16	26	.27	8	.08		
448	174	Traumatism by machines	76	.81	2	.02				
449	175	Traumatism by other crushing	621	6.66	24	.25	.26	.27		
450	176	Injuries by animals	1,150	12.33	9	.10	4	.04		
452	178	Effects of excessive cold	10	.11						
453	179	Effects of heat	127	1.36						
455	181	Effects of electricity	1	.01			1	.01		
456–458	182–184	Homicides, all	7	.07			21	.22		
460	186	Other external violence	4,845	51.92	14	.15	10	.11		
462–466		Killed or wounded in action	18	.19	1	.01	11	.12		
462		By bullet	18	.19	1	.01	11	.12		
		DISEASES AND INJURIES GROUPED.								
		General diseases	22,101	236.98	337	3.56	98	1.03	929.50	9.9
	1–19	Epidemic diseases	9,626	103.21	14	.15	33	.35	234.47	2.5
	20–59	Other general diseases	2,475	133.76	323	3.41	65	.69	695.03	7.4
		Diseases of the nervous system and organs of special sense	2,854	30.60	493	5.20	24	.25	202.50	2.1
	60–74	Of the nervous system	1,290	13.83	449	4.74	24	.25	148.20	1.5
	75	Of the eye and its annexa	940	10.08	24	.25			32.02	.3
	76	Of the ear and its annexa	624	6.69	20	.21			22.28	.2
	77–85	Diseases of the circulatory system	1,739	18.65	64	.68	34	.36	91.13	.9
	86–98	Diseases of the respiratory system	5,600	60.04	38	.40	40	.42	135.48	1.4
	99–118	Diseases of the digestive system	15,316	164.22	54	.57	30	.32	319.93	3.4
	119–127	Diseases of the genito-urinary system	927	9.94	53	.56	16	.17	49.57	.5
	142–145	Diseases of the skin and cellular tissue	5,283	56.65	7	.07	2	.02	126.49	1.3
	146–149	Diseases of the organs of locomotion	2,357	25.27	165	1.74	1	.01	117.46	1.2
	150	Malformations, etc	367	3.94	1	.01			10.99	.1
	151	Diseases, results of old age	2	.02					.03	.0
	189	Ill-defined diseases	374	4.01			1	.01	9.67	.1
		Total for disease	56,920	610.32	1,212	12.79	246	2.60	1,992.74	21.
	155–186	External causes	12,522	134.27	139	1.47	190	2.01	420.47	4.
		Total for disease and external causes	69,442	744.59	1,351	14.26	436	4.60	2,413.21	25.

atios per 1,000 of mean strength, for the Army, American troops, enlisted men, white and
915—Continued.

Army, American troops, white.								Army, American troops, colored.							
S. G. O., 87,458—A. G. O., 88,925.								S. G. O., 5,804—A. G. O., 5,804.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
2	0.02														
3	.03			3	0.03										
				33	.37							1	0.17		
257	2.94	25	0.28	11	.12			18	3.10	2	0.34	1	.17		
4	.05			2	.02			1	.17						
921	10.53	5	.06	1	.01			65	11.20	1	.17				
3,167	36.21	24	.27	8	.09			205	35.32	2	.34				
71	.81	2	.02					5	.86						
600	6.86	23	.26	24	.27			21	3.62	1	.17	2	.34		
1,071	12.25	8	.09	4	.04			79	13.61	1	.17				
10	.11														
124	1.42							3	.52						
1	.01			1	.01										
4	.05			19	.21			3	.52			2	.34		
4,585	52.43	14	.16	10	.11			260	44.80						
17	.19	1	.01	11	.12			1	.17						
17	.19	1	.01	11	.12			1	.17						
0,531	234.75	312	3.51	88	.99	861.34	9.85	1,570	270.51	25	4.31	10	1.72	68.16	11.74
,949	102.32	14	.16	33	.37	221.11	2.53	677	116.64					13.36	2.30
1,582	132.43	298	3.35	55	.62	640.24	7.32	893	153.86	25	4.31	10	1.72	54.80	9.44
2,691	30.77	458	5.14	23	.26	188.12	2.14	163	28.09	35	6.03	1	.17	14.38	2.48
1,211	13.85	418	4.70	23	.26	137.73	1.57	79	13.61	31	5.34	1	.17	10.47	1.80
872	9.97	20	.22			28.37	.32	68	11.72	4	.69			3.65	.63
608	6.95	20	.22			22.01	.25	16	2.76					.26	.05
1,618	18.50	60	.67	27	.30	85.25	.97	121	20.85	4	.69	7	1.21	5.87	1.01
5,252	60.06	35	.39	36	.40	127.37	1.46	348	59.96	3	.52	4	.69	8.12	1.40
4,489	165.68	52	.58	27	.30	302.68	3.46	827	142.50	2	.34	3	.52	17.24	2.97
864	9.88	53	.60	15	.17	47.09	.54	63	10.86			1	.17	2.48	.43
5,053	57.78	7	.08	2	.02	119.36	1.36	230	39.63					7.13	1.23
2,225	25.44	151	1.70	1	.01	107.62	1.23	132	22.74	14	2.41			9.84	1.70
324	3.70	1	.01			9.33	.11	43	7.41					1.66	.29
2	.02					.03	.00								
338	3.86			1	.01	8.44	.10	36	6.20					1.23	.21
3,387	610.43	1,129	12.70	220	2.47	1,856.64	21.23	3,533	608.72	83	14.30	26	4.48	136.10	23.45
1,784	134.74	130	1.46	184	2.07	391.42	4.48	738	127.15	9	1.55	6	1.03	29.06	5.01
,171	745.17	1,259	14.16	404	4.54	2,248.05	25.70	4,271	735.87	92	15.85	32	5.51	165.17	28.46

TABLE No. 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
officers and total American troops

Serial Nos.	International classification.		Officers, United States.										
		Mean strength	S. G. O., 3,064—A. G. O., 3,492.										
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
1	1	Typhoid fever	1	0.33							0.30	0.1
2	1a	Paratyphoid fever	1	.33							.10	.0
7-11	4	Malaria	22	7.18							1.23	.4
7		Estivo-autumnal fever	1	.33							.23	.0
8		Malarial cachexia	2	.65							.25	.0
9		Quartan malarial fever										
10		Tertian malarial fever	16	5.22							.69	.2
11		Undetermined malarial fever.	3	.98							.06	.0
12	5	Smallpox and varioloid										
13	5b	Vaccinia										
14	6	Measles	1	.33							.02	.
15	7	Scarlet fever	2	.65							.11	.
17	9	Diphtheria	4	1.31							.13	.
18	10	Influenza	239	78.00							3.09	1.
20	13	Cholera nostras										
21-23	14	Dysentery	17	5.55							1.68	.
21		Bacillary										
22		Entamoebic	15	4.90							1.59	.
23		Unclassified	2	.65							.09	.
27	18	Erysipelas										
29	19b	Dengue	4	1.31							.05	.
31	19d	German measles	1	.33							.03	.
34	19g	Mumps	3	.98							.10	.
37	20	Purulent infection and septicemia	1	.33				1	1	.29	.02	.
42-46	25	Mycoses										
49-57	28-34	Tuberculosis, all	8	2.61							6.81	2.
49-51	28	Tuberculosis of lungs	7	2.29							6.65	2.
52	29	Miliary tuberculosis, acute										
53-57	30-34	Tuberculosis of other organs.	1	.33							.17	.
59-74	37-38	Venereal diseases, all	12	3.92							2.01	.
59-64	37	Syphilis	5	1.63							1.46	.
65-67	38a	Soft chancre	2	.65							.17	.
68-74	38b	Gonococcus infection	5	1.63							.38	.
75-79	39-45	Cancer and other malignant tumors	1	.33				1	1	.29	.04	.
80	46	Benign tumors	1	.33							.39	.
81-85	47-48	Rheumatism, articular, all	14	4.57							.96	.
81-82	47	Acute articular rheumatism.	11	3.59							.47	.
83-85	48	Chronic articular rheumatism.	3	.98							.48	.
87-88	50	Diabetes	2	.65							.11	.
89	51	Exophthalmic goitre									.14	.
97-100	56	Alcoholism and results	18	5.87							.67	.
101-102	57-58	Chronic occupational poisoning										
103-104	59	Other chronic poisoning, including drug habit										
107	61	Simple meningitis										
108	61a	Epidemic cerebrospinal meningitis										
109	62	Locomotor ataxia	1	.33							.20	.
110-115	63	Other diseases of spinal cord	2	.65							.65	.
116	64	Cerebral hemorrhage, apoplexy										
117-119	66	Paralysis without specified cause	1	.33							.30	.
120-126	67-68	Mental alienation	6	1.96							.75	.
127	69	Epilepsy	3	.98							.69	.
129-133	73	Neuralgia and neuritis	40	13.06							2.98	.
138-141	75a	Conjunctivitis	11	3.59							.30	.
142	75b	Trachoma	1	.33							.12	.
166	77	Pericarditis										
167	78	Acute endocarditis										
169-174	79	Organic heart disease	4	1.31				1	1	.29	.30	.
175	80	Angina pectoris										
176-177½	81	Diseases of the arteries, artheroma, aneurism, etc	3	.98							.50	

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[1] Including those occurring in the United States proper from commands on duty in Alaska or ins
possessions.

atios per 1,000 of mean strength, for the United States (continental), excluding Alaska or the year 1915.

Enlisted men, United States.										Total, United States.									
S. G. O., 63,725—A. G. O., 64,636.										S. G. O., 66,789—A. G. O., 68,128.									
Admissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
3	0.05	....	....	....	....	....	....	0.70	0.01	4	0.06	....	....	....	....	....	....	1.00	0.02
4	.06	....	....	....	....	....	....	.61	.01	5	.07	....	....	....	....	....	....	.71	.01
804	12.62	....	....	....	2	2	0.03	16.95	.27	826	12.37	....	....	....	2	2	0.03	18.18	.27
124	1.95	....	....	....	2	2	.03	2.64	.04	125	1.87	....	....	....	2	2	.03	2.86	.04
5	.08	....	....	....	....	....	....	.40	.01	7	.10	....	....	....	....	....	....	.65	.01
11	.17	....	....	....	....	....	....	.18	.00	11	.16	....	....	....	....	....	....	.18	.00
591	9.27	....	....	....	....	....	....	12.46	.20	607	9.09	....	....	....	....	....	....	13.15	.20
73	1.15	....	....	....	....	....	....	1.28	.02	76	1.14	....	....	....	....	....	....	1.34	.02
3	.05	....	....	....	....	....	....	.25	.00	3	.04	....	....	....	....	....	....	.25	.00
364	5.71	....	....	....	....	....	....	4.62	.07	364	5.45	....	....	....	....	....	....	4.62	.07
555	8.71	8	8	0.12	20	20	.31	34.32	.54	556	8.33	8	8	0.12	20	20	.29	34.34	.51
47	.74	....	....	....	1	1	.02	4.51	.07	49	.73	....	....	....	1	1	.01	4.62	.07
56	.88	....	....	....	....	....	....	2.47	.04	60	.90	....	....	....	....	....	....	2.61	.04
2,680	42.05	....	....	....	4	4	.06	34.11	.54	2,919	43.71	....	....	....	4	4	.06	37.20	.56
1	.02	....	....	....	....	....	....	.01	.00	1	.01	....	....	....	....	....	....	.01	.00
90	1.41	5	4	.06	....	....	....	7.27	.11	107	1.60	5	4	.06	....	....	....	8.94	.13
10	.16	....	....	....	....	....	....	.50	.01	10	.15	....	....	....	....	....	....	.50	.01
58	.91	5	4	.06	....	....	....	6.09	.10	73	1.09	5	4	.06	....	....	....	7.68	.12
22	.35	....	....	....	....	....	....	.68	.01	24	.36	....	....	....	....	....	....	.76	.01
19	.30	1	1	.02	1	1	.02	.73	.01	19	.28	1	1	.02	1	1	.01	.73	.01
51	.80	....	....	....	....	....	....	.78	.01	55	.82	....	....	....	....	....	....	.83	.01
46	.72	....	....	....	....	....	....	1.41	.02	47	.70	....	....	....	....	....	....	1.44	.02
511	8.02	....	....	....	....	....	....	22.85	.36	514	7.70	....	....	....	....	....	....	22.95	.34
4	.06	....	....	....	4	4	.06	.15	.00	5	.07	....	....	....	5	5	.07	.16	.00
1	.02	....	....	....	....	....	....	.02	.00	1	.01	....	....	....	....	....	....	.34	.00
171	2.68	170	108	1.67	30	18	.28	148.64	2.33	179	2.68	170	108	1.67	30	18	.26	155.15	2.33
157	2.46	160	103	1.59	23	13	.20	144.35	2.27	164	2.45	160	103	1.59	23	13	.19	150.99	2.26
1	.02	....	....	....	3	1	.02	.27	.01	1	.01	....	....	....	3	1	.01	.27	.00
13	.21	10	5	.09	4	4	.07	4.02	.07	14	.20	10	5	.09	4	4	.05	4.19	.06
5,328	83.60	77	57	.88	4	4	.06	254.43	3.99	5,340	79.95	77	57	.88	4	4	.06	256.42	3.84
1,099	17.24	46	35	.54	3	3	.05	7.81	1.22	1,101	16.53	46	35	.54	3	3	.04	7.95	1.19
1,007	15.80	2	2	.03	....	....	....	45.78	.72	1,009	15.11	2	2	.03	....	....	....	45.95	.69
3,222	50.56	29	20	.31	1	1	.02	130.60	2.05	3,227	48.32	29	20	.31	1	1	.01	130.97	1.96
17	.27	5	5	.08	9	9	.14	4.21	.07	18	.27	5	5	.08	10	10	.15	4.25	.06
91	1.43	....	....	....	1	1	.02	2.38	.04	92	1.38	....	....	....	1	1	.01	2.76	.04
424	6.65	19	17	.26	....	....	....	30.36	.47	438	6.56	19	17	.26	....	....	....	31.30	.47
354	5.55	5	4	.06	....	....	....	21.79	.34	365	5.47	5	4	.06	....	....	....	22.26	.33
70	1.10	14	13	.20	....	....	....	8.57	.13	73	1.09	14	13	.20	....	....	....	9.05	.14
13	.20	2	1	.02	3	3	.05	1.55	.02	15	.22	2	1	.02	3	3	.04	1.65	.02
16	.25	10	8	.12	....	....	....	4.75	.07	16	.24	10	8	.12	....	....	....	4.89	.06
833	13.07	24	13	.20	4	4	.06	13.52	.21	851	12.74	24	13	.20	4	4	.06	14.19	.21
4	.06	....	....	....	....	....	....	.44	.01	4	.06	....	....	....	....	....	....	.44	.01
25	.39	9	2	.03	....	....	....	2.27	.04	25	.37	9	2	.03	....	....	....	2.27	.03
2	.03	2	2	.03	....	....	....	1.05	.02	2	.03	2	2	.03	....	....	....	1.05	.02
23	.36	7	6	.09	9	9	.14	3.18	.05	23	.34	7	6	.09	9	9	.13	3.18	.05
9	.14	3	2	.03	....	....	....	2.45	.04	10	.15	3	2	.03	....	....	....	2.66	.04
4	.06	5	3	.05	....	....	....	.54	.02	6	.09	5	3	.05	....	....	....	2.19	.03
7	.11	....	....	....	6	6	.09	.16	.00	7	.10	....	....	....	6	6	.09	.25	.00
13	.20	4	4	.06	....	....	....	1.85	.03	14	.20	4	4	.06	....	....	....	2.15	.03
194	3.04	304	164	2.54	5	3	.05	60.34	.95	200	3.00	304	164	2.54	5	3	.04	61.09	.91
74	1.16	65	39	.60	....	....	....	10.33	.16	77	1.15	65	39	.60	....	....	....	11.02	.16
355	5.57	23	16	.25	....	....	....	17.67	.28	395	5.92	23	16	.25	....	....	....	20.66	.31
251	3.94	2	2	.03	....	....	....	5.28	.08	262	3.92	2	2	.03	....	....	....	5.58	.08
6	.09	1	....	....	....	....	....	.53	.01	7	.10	1	....	....	....	....	....	.65	.01
4	.06	....	....	....	....	....	....	.29	.00	4	.06	....	....	....	....	....	....	.29	.00
5	.08	2	1	.02	....	....	....	.60	.01	5	.07	2	1	.02	....	....	....	.60	.01
67	1.05	47	29	.44	19	19	.29	11.38	.18	71	1.04	47	29	.45	20	20	.29	11.68	.17
9	.14	1	1	.02	2	2	.03	.27	.00	9	.13	1	1	.02	2	2	.03	.27	.00
11	.17	3	1	.02	5	5	.08	2.45	.04	14	.20	3	1	.02	6	5	.07	2.55	.04

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[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

TABLE No. 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with*
officers and total American troops,

			Officers, United States.									
		Mean strength	S. G. O., 3,064—A. G. O., 3,492.									
Serial Nos.	International classification.	Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
					(1)	(2)		(1)	(2)			
178-179	82	Embolism and thrombosis										
181	83b	Hemorrhoids	18	5.87							1.37	.45
183	83d	Varicose veins	3	.98							.18	.06
184	83e	Varicocele	1	.33							.03	.01
185-187	84	Diseases of the lymphatic system	3	.98							.11	.03
193-199	86	Diseases of the nasal fossæ	102	33.29							1.44	.47
200-202	87	Diseases of the larynx	15	4.90							.19	.06
203-204	88	Diseases of the thyroid body										
205-206	89-90	Bronchitis	134	43.73							2.10	.69
207	91	Broncho-pneumonia	4	1.31							.45	.1
208	92	Pneumonia	4	1.31				1	1	0.29	.30	.1
209-215	93	Pleurisy	6	1.96							.38	.1
216-217	94	Pulmonary congestion and pulmonary apoplexy.										
219	96	Asthma	4	1.31							.09	.0
220	97	Pulmonary emphysema										
221	98a	Hæmoptysis										
222	98b	Hay fever										
224-227	99a	Diseases of the teeth and gums	20	6.53							.46	.1
228-231	99b	Other diseases of the mouth and annexa.	2	.65							.04	.0
232-236	100	Diseases of the pharynx	103	33.61							1.62	.5
238	102	Ulcer of stomach	5	1.63				1	1	.29	1.18	.3
239-244	103	Other diseases of stomach (cancer excepted).	38	12.40							.53	.1
245-253	105	Diarrhea and enteritis	110	35.90							2.76	.9
254	106	Ankylostomiasis										
255-259	107	Intestinal parasites	1	.33							.01	.0
260	108	Appendicitis	30	9.79							2.10	.6
261-263	109	Hernia	11	3.59							1.27	.4
264-267	110a	Diseases of the anus and fecal fistula.	4	1.31							.25	.0
268-272	110b	Other diseases of the intestines	51	16.64							1.10	.3
275	113	Cirrhosis of liver	1	.33							.20	.0
276	114	Biliary calculi	1	.33							.21	.0
277-281	115	Other diseases of liver and gall bladder.	11	3.59							.93	.3
283-284	117	Simple peritonitis										
288	119	Acute nephritis	3	.98							.20	.0
289-291	120	Bright's disease	13	4.24							2.52	.8
293-299	122	Other diseases of the kidney and annexa.	5	1.63							.56	.1
303-306	124	Diseases of the bladder	4	1.31							.18	.0
304	124b	Enuresis										
307-309	125	Diseases of the urethra, urinary abscess, etc.										
310-312	126	Diseases of the prostate	2	.65							.54	.1
313-319	127	Diseases of the male genital organs (nonvenereal)	8	2.61							.15	.0
322-323	143	Furuncle and carbuncle	18	5.88							.30	.0
324-325	144	Acute abscess and cellulitis	14	4.57							.42	.1
352-357	146	Diseases of the bones	8	2.61							1.14	.3
358-360	147	Diseases of the joints	11	3.59							.97	.3
367	149g	Flat foot	3	.98							.17	.0
372	150	Congenital malformations	3	.98							.07	.0
373-374	151	Senility										
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	1	.33							.01	.
379	189Ba	Under observation, undiagnosed and unknown	9	2.94				1	1	.29	2.41	.
380	189Bb	Malingering										

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insul possessions.

tios per 1,000 of mean strength, for the United States (continental), excluding Alaska
r the year 1915—Continued.

Enlisted men, United States.										Total, United States.									
S. G. O., 63,725—A. G. O., 64,636.										S. G. O., 66,789—A. G. O., 68,128.									
Admissions.		Discharges.			Deaths.			Non-effective		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
2	0.03	2	1	0.02	1	1	0.02	0.24	0.00	2	0.03	1	1	0.02	1	1	0.01	0.24	0.00
376	5.90							10.66	.17	394	5.90							12.03	.18
38	.60	2	2	.03				2.12	.03	41	.61	2	2	.03				2.31	.03
162	2.54	2	1	.02				8.69	.14	163	2.44	2	1	.02				8.73	.13
361	5.66	2		.03				19.30	.30	364	5.45							19.41	.29
,015	15.93	2	1	.02				16.39	.26	1,117	16.72	1	1	.02				17.83	.27
193	3.03	1		.02				3.55	.06	208	3.11							3.73	.06
8	.13	7	3	.05				1.85	.03	8	.12	7	3	.05				1.85	.03
,353	36.92	5	2	.03	1	1	.02	39.70	.62	2,487	37.24	5	2	.03	1	1	.01	41.81	.63
44	.69	1	1	.02	5	5	.08	3.37	.05	48	.72	1	1	.02	5	5	.07	3.81	.06
175	2.75				27	27	.42	12.84	.20	179	2.68				28	28	.41	13.13	.20
173	2.71	7	7	.11	3	3	.05	14.60	.23	179	2.68	7	7	.11	3	3	.04	14.98	.22
1	.02							.01	.00	1	.01							.01	.00
51	.80	14	6	.09				4.17	.07	55	.82	14	6	.09				4.27	.06
2	.03							.08	.00	2	.03							.08	.00
5	.08							.44	.01	5	.07							.44	.01
1	.02							.01	.00	1	.01							.01	.00
336	5.27	1	1	.02				6.21	.10	356	5.33	1	1	.02				6.67	.10
61	.96							1.50	.02	63	.94							1.54	.02
,613	72.38	1	1	.02	1	1	.02	64.05	1.01	4,716	70.60	1	1	.02	1	1	.01	65.67	.98
14	.22	5	2	.03	1	1	.02	3.17	.05	19	.28	5	2	.03	2	2	.03	4.35	.07
830	13.02	7	6	.09	1	1	.02	14.98	.24	868	12.99	7	6	.09	1	1	.01	15.51	.23
054	32.23	1			4	3	.05	26.23	.41	2,164	32.40	1			4	3	.04	28.99	.43
20	.31	1	1	.02				1.72	.03	20	.30	1	1	.02				1.72	.03
64	1.00							.96	.02	65	.97							.97	.01
476	7.47	4	1	.02	10	10	.15	34.42	.54	506	7.58	4	1	.02	10	10	.15	36.52	.55
248	3.89	19	17	.26	2	2	.03	25.54	.40	259	3.88	19	17	.26	2	2	.03	26.81	.40
58	.91							3.69	.06	62	.93							3.93	.06
466	23.00	6	2	.03				19.57	.31	1,517	22.71	6	2	.03				20.67	.31
5	.08	1	1	.02	1	1	.02	.66	.01	6	.09	1	1	.02	1	1	.01	.86	.01
4	.06	1	1	.02				.48	.01	5	.07	1	1	.02				.70	.01
246	3.86	2	2	.03	1	1	.02	10.93	.17	257	3.85		2	.03	1	1	.01	11.86	.18
1	.02				1	1	.02	.07	.00	1	.01				1	1	.01	.07	.00
17	.27				3	3	.05	1.28	.02	20	.30				3	3	.04	1.48	.02
35	.55	12	10	.15	8	8	.12	7.48	.12	48	.72	12	10	.15	8	8	.12	10.00	.15
18	.28	1	1	.02				1.94	.03	23	.34	1	1	.02				2.50	.04
126	1.98	33	27	.42				8.23	.13	130	1.95	33	27	.42				8.41	.13
74	1.16	33	27	.42				6.23	.10	74	1.11	33	27	.42				6.23	.09
75	1.18	1	1	.02				2.49	.04	75	1.12	1	1	.02				2.49	.04
9	.14	1		.02				1.08	.02	11	.16	1		.02				1.62	.02
284	4.46	1	1	.02				8.57	.13	292	4.37	1	1	.02				8.72	.13
126	17.66							19.31	.30	1,144	17.13							19.61	.32
811	12.72	1	1	.02	2	2	.03	20.72	.32	825	12.36	1	1	.02	2	2	.03	21.39	.30
131	2.06	6	4	.06	1	1	.02	9.30	.15	139	2.08	6	4	.06	1	1	.01	10.44	.16
260	4.08	23	20	.31				22.24	.35	271	4.06	23	20	.31				23.22	.35
143	2.24	118	77	1.19				21.20	.33	146	2.19	118	77	1.19				21.37	.32
226	3.55	1	1	.02				6.64	.10	229	3.43	1	1	.02				6.70	.10
2	.03							.03	.00	2	.03							.03	.00
109	1.71							2.13	.03	110	1.65							2.15	.03
62	.97				1	1	.02	3.23	.05	71	1.06				2	2	.03	5.67	.08
21	.33							.73	.01	21	.31							.73	.01

Excluding those occurring in the United States proper from commands on duty in Alaska or insular
sessions.

TABLE No. 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi officers and total American troop*

Serial Nos.	International classification.		Officers, United States.									
		Mean strength	S. G. O., 3,064—A. G. O., 3,492.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffectiv	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426-431	155-163	Suicides, all	.....	.....	....	...	....	1	1	0.29	....	...
435	164	Poisoning by food	5	1.63	....	...	....	...	...	...	....	...
436	165a	Venomous bites and stings	.....	.....	....	...	....	...	...	...	....	...
437	165b	Other poisoning (deleterious gases excepted), accidental	.....	.....	....	...	....	...	...	...	....	...
439	167	Burns (conflagrations excepted)	5	1.63	....	...	....	...	...	...	....	...
440	168	Absorption of deleterious gases	.....	.....	....	...	....	...	...	...	....	...
441	168a	Suffocation, strangulation	.....	.....	....	...	....	...	...	...	....	...
442	169	Drowning, accidental	.....	.....	....	...	....	...	...	...	....	...
443	170	Traumatism by firearms (other than specified)	3	.98	....	...	....	...	...	...	....	...
444	170a	Shot by sentry or guard	.....	.....	....	...	....	...	...	...	....	...
445	171	Traumatism by cutting or piercing instruments	9	2.94	....	...	....	...	...	...	....	...
446	172	Traumatism by fall	77	25.13	....	...	....	...	...	...	....	...
448	174	Traumatism by machines	1	.33	....	...	....	...	...	...	....	...
449	175	Traumatism by other crushing	10	3.26	....	...	....	3	3	.86	....	...
450	176	Injuries by animals	34	11.10	....	...	....	...	...	...	....	...
452	178	Effects of excessive cold	.....	.....	....	...	....	...	...	...	....	...
453	179	Effects of heat	5	1.63	....	...	....	...	...	...	....	...
455	181	Effects of electricity	.....	.....	....	...	....	...	...	...	....	...
456-458	182-184	Homicides, all	.....	.....	....	...	....	...	...	...	....	...
460	186	Other external violence	75	24.48	....	...	....	...	...	...	....	...
462-466	....	Killed or wounded in action	2	.65	....	...	....	...	...	...	....	...
462	....	By bullet	2	.65	....	...	....	...	...	...	....	...
		DISEASES AND INJURIES GROUPED.										
	....	General diseases	364	118.80	....	...	....	2	2	.57	18.76	6.
	1-19	Epidemic diseases	306	99.87	....	...	....	...	...	....	7.39	2.
	20-59	Other general diseases	58	18.93	....	...	....	2	2	.57	11.37	3.
	....	Diseases of the nervous system and organs of special sense	143	46.67	....	...	....	...	...	....	12.78	4.
	60-74	Of the nervous system	96	31.33	....	...	....	...	...	....	10.00	3.
	75	Of the eye and its annexa	36	11.75	....	...	....	...	...	....	1.55	.
	76	Of the ear and its annexa	11	3.59	....	...	....	...	...	....	1.24	.
	77-85	Diseases of the circulatory system	34	11.10	....	...	....	1	1	.29	2.76	.
	86-98	Diseases of the respiratory system	270	88.12	....	...	....	1	1	.29	4.95	1.
	99-118	Diseases of the digestive system	390	127.28	....	...	....	3	3	.86	12.66	4.
	119-127	Diseases of the genito-urinary system	50	16.32	....	...	....	...	...	....	4.78	1.
	142-145	Diseases of the skin and cellular tissue	58	18.93	....	...	....	...	...	....	1.42	.
	146-149	Diseases of the organs of locomotion	68	22.19	....	...	....	...	...	....	5.49	1.
	150	Malformations, etc	3	.98	....	...	....	...	...	....	.07	.
	154	Diseases, results of old age	.....	.....	....	...	....	...	...	....	....	...
	189	Ill-defined diseases	12	3.92	....	...	....	1	1	.29	2.47	.
		Total for disease	1,392	454.31	....	...	....	8	8	2.29	66.14	21
	155-186	External causes	233	76.04	....	...	....	4	4	1.15	14.80	4
		Total for disease and external causes	1,625	530.35	....	...	....	12	12	3.44	80.94	[illegible]

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insu possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insu possessions.

tios per 1,000 of mean strength, for the United States (continental), excluding Alaska r the year 1915—Continued.

Enlisted men, United States. S. G. O., 63,725—A. G. O., 64,636.											Total, United States. S. G. O., 66,789—A. G. O., 68,128.										
Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.			
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.		
11	0.17				38	38	0.60			11	0.16				39	39	0.58				
83	1.30				1	1	.02			88	1.32				1	1	.01				
53	.83									53	.79										
32	.50				5	5	.08			32	.48				5	5	.07				
258	4.05	3	3	0.05						263	3.94	3	3	0.05							
2	.03									2	.03										
3	.05				2	2	.03			3	.04				2	2	.03				
					25	25	.39								25	25	.37				
217	3.40	27	24	.37	12	12	.19			220	3.29	27	24	.37	12	12	.18				
4	.06				2	2	.03			4	.06				2	2	.03				
583	9.15	6	3	.05	1	1	.02			592	8.86	6	3	.05	1	1	.01				
,554	40.07	26	22	.34	7	7	.11			2,631	39.39	26	22	.34	7	7	.10				
63	.99	2	2	.03						64	.96	2	2	.03							
364	5.71	24	15	.23	22	22	.34			374	5.60	24	15	.23	25	25	.37				
,018	15.97	9	9	.14	4	4	.06			1052	15.75	9	9	.14	4	4	.06				
6	.09									6	.09										
56	.88									61	.91										
1	.02									1	.01										
5	.08				17	17	.27			5	.07				17	17	.25				
,466	54.38	14	11	.17	9	9	.14			3,541	53.02	14	11	.17	9	9	.13				
18	.28	1	1	.02	11	11	.17			20	.30	1	1	.02	11	11	.16				
18	.28	1	1	.02	11	11	.17			20	.30	1	1	.02	11	11	.16				
,464	195.59	336	228	3.53	84	72	1.11	601.70	9.44	12,828	192.06	336	228	3.53	86	74	1.09	620.40	9.29		
,516	86.56	14	13	.20	28	28	.43	135.77	2.13	5,822	87.17	14	13	.20	28	28	.41	143.16	2.14		
,948	109.03	322	215	3.33	56	44	.68	465.93	7.31	7,006	104.90	322	215	3.33	58	46	.68	477.30	7.15		
,727	27.10	482	280	4.42	20	18	.28	143.59	2.26	1,870	27.99	482	280	4.42	20	18	.26	156.37	2.33		
828	12.99	439	253	3.91	20	18	.28	107.18	1.68	924	13.83	439	253	3.91	20	18	.26	117.18	1.75		
574	9.01	24	20	.31				22.66	.36	610	9.13	24	20	.31				24.20	.36		
325	5.10	19	13	.29				13.75	.22	336	5.03	19	13	.29				14.98	.22		
,114	17.48	63	37	.57	27	27	.42	59.44	.93	1,148	17.19	63	37	.57	28	28	.41	62.21	.93		
,034	63.30	38	20	.31	36	36	.56	97.46	1.53	4,304	64.44	38	20	.31	37	37	.54	102.41	1.53		
517	165.03	54	38	.59	25	24	.37	215.74	3.39	10,907	163.30	54	36	.56	28	27	.40	228.41	3.42		
602	9.45	53	44	.68	12	12	.19	34.36	.54	652	9.76	53	44	.68	12	12	.18	39.14	.59		
,428	53.79	7	6	.09	2	2	.03	82.47	1.29	3,486	52.20	7	6	.09	2	2	.03	83.88	1.26		
,641	25.75	165	111	1.72	1	1	.02	81.96	1.29	1,709	25.59	165	111	1.72	1	1	.01	87.43	1.31		
226	3.55	1	1	.02				6.64	.10	229	3.43	1	1	.02				6.70	.10		
2	.03							.02	.00	2	.03							.03	.00		
217	3.40				1	1	.02	6.39	.10	229	3.43				2	2	.03	8.86	.13		
,972	561.49	1,199	771	11.93	208	192	2.90	1,329.77	20.87	37,364	559.43	1,199	771	11.93	216	201	2.95	1,395.91	20.90		
,891	139.52	139	108	1.67	156	156	2.41	310.41	4.87	9,124	136.61	139	108	1.67	160	160	2.35	325.24	4.87		
,863	701.01	1,338	879	13.60	364	349	5.40	1,640.21	25.74	16,488	696.04	1,338	879	13.60	376	361	5.30	1,721.15	25.77		

[3] Noneffectiveness for individual external causes not tabulated.

TABLE NO. 71.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit continental, excludin*

Serial Nos.	International classification.		United States, total enlisted men, white and colored.									
		Mean strength	S. G. O., 63,725—A. G. O., 64,636.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
1	1	Typhoid fever	3	0.05							0.70	0.0
2	1a	Paratyphoid fever	4	.06							.58	.0
7-11	4	Malaria	804	12.62				2	2	0.03	16.95	.2
7		Estivo-autumnal fever	124	1.95				2	2	.03	1.64	.0
8		Malarial cachexia	5	.08							.40	.0
9		Quartan malarial fever	11	.17							.18	.0
10		Tertian malarial fever	591	9.27							12.64	.2
11		Undetermined malarial fever	73	1.15							1.28	.0
12	5	Smallpox and varioloid	3	.05							.25	.0
13	5b	Vaccinia	364	5.71							4.56	.0
14	6	Measles	555	8.71	8	8	0.12	20	20	.31	34.32	.
15	7	Scarlet fever	47	.74				1	1	.02	4.51	.0
17	9	Diphtheria	56	.88							2.47	.0
18[1]	10	Influenza	2,680	42.05				4	4	.06	34.10	.
20	13	Cholera nostras	1	.02							.01	.0
21-23	14	Dysentery	90	1.41		4	.06				7.27	.
21		Bacillary	10	.16							1.50	.0
22		Entamoebic	58	.91		4	.06				6.00	.
23		Unclassified	22	.35							.68	.0
27	18	Erysipelas	19	.30	1	1	.02	1	1	.02	.73	.0
29	19b	Dengue	51	.80							.78	.0
31	19d	German measles	46	.72							1.41	.0
34	19g	Mumps	511	8.02							22.85	.
37	20	Purulent infection and septicemia	4	.06				4	4	.06	.15	.0
42 46	25	Mycoses	1	.02							.00	.0
49 57	28-34	Tuberculosis, all	171	2.68	170	108	1.67	30	18	.28	148.63	2.
49-51	28	Tuberculosis of lungs	157	2.46	160	103	1.59	23	13	.20	144.34	2.
52	29	Miliary tuberculosis, acute	1	.02				3	1	.02	.27	.0
53-57	30-34	Tuberculosis of other organs	13	.21	10	5	.09	4	4	.07	4.02	.0
59-74	37-38	Venereal diseases, all	5,328	83.60	77	57	.88	4	4	.06	254.42	3.
59-64	37	Syphilis	1,099	17.24	46	35	.54	3	3	.05	78.05	1.
65-67	38a	Soft chancre	1,007	15.80	2	2	.03				45.78	.
68-74	38b	Gonococcus infection	3,222	50.56	29	20	.31	1	1	.02	130.59	2.
75-79	39-45	Cancer and other malignant tumors	17	.27	5	5	.08	9	9	.14	4.21	.
80	46	Benign tumors	91	1.43				1	1	.02	2.38	.
81-85	47-48	Rheumatism, articular, all	424	6.65	19	17	.26				30.35	.
81-82	47	Acute articular rheumatism	354	5.55	5	4	.06				21.79	.
83-85	48	Chronic articular rheumatism	70	1.10	14	13	.20				3.57	.
87-88	50	Diabetes	13	.20	2	1	.02	3	3	.05	1.55	.
89	51	Exophthalmic goitre	16	.25	10	8	.12				4.75	.
97-100	56	Alcoholism and results	833	13.07	24	13	.20	4	4	.06	13.52	.
101-102	57-58	Chronic occupational poisoning	4	.06							.44	.
103-104	59	Other chronic poisoning, including drug habit	25	.39	9	2	.03				2.27	.
107	61	Simple meningitis	2	.03	2	2	.03				1.05	.
108	61a	Epidemic cerebrospinal meningitis	23	.36	7	6	.09	9	9	.14	3.18	.
109	62	Locomotor ataxia	9	.14	3	2	.03				2.45	.
110-115	63	Other diseases of spinal cord	4	.06	5	3	.05				1.54	.
116	64	Cerebral hemorrhage, apoplexy	7	.11				6	6	.09	.16	.
117-119	66	Paralysis without specified cause	13	.20	4	4	.06				1.85	.
120-126	67-68	Mental alienation	194	3.04	304	164	2.54	5	3	.05	60.33	.
127	69	Epilepsy	74	1.16	65	39	.60				10.33	.
129-133	73	Neuralgia and neuritis	355	5.57	23	16	.25				17.67	.
138-141	75a	Conjunctivitis	251	3.94	2	2	.03				5.28	.
142	75b	Trachoma	6	.09	1						.53	.
166	77	Pericarditis	4	.06							.19	.
167	78	Acute endocarditis	5	.08	2	1	.02				.60	.
169-174	79	Organic heart disease	67	1.05	47	29	.44	19	19	.29	11.38	.
175	80	Angina pectoris	9	.14	1	1	.02	2	2	.03	.27	.
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	11	.17	3	1	.02	5	5	.08	2.45	.
178-179	82	Embolism and thrombosis	2	.03	2	1	.02	1	1	.02	.24	.

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insu possessions.

ios per 1,000 of mean strength, for enlisted American troops serving in the United States, aska, for the year 1915.

United States, white, enlisted men.										United States, colored, enlisted men.									
S. G. O., 61,286—A. G. O., 62,197.										S. G. O., 2,439—A. G. O., 2,439.									
missions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
		Number.			Number.							Number.			Number.				
Number.	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.	Ratio.	Number.	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.	Ratio.
2	0.03							0.63	0.01	1	0.41							0.07	0.03
4	.07							.61	.01										
788	12.86				2	2	0.03	16.62	.27	16	6.56							.33	.13
121	1.97				2	2	.03	2.54	.04	3	1.23							36.10	.04
5	.08							.40	.01										
11	.18							.18	.00										
578	9.43							12.23	.20	13	5.33							.23	.09
73	1.19							1.28	.02										
3	.05							.26	.00										
363	5.92							4.61	.08	1	.41							.01	.00
554	9.04	8	8	0.13	20	20	.32	34.24	.56	1	.41							.07	.03
47	.77				1	1	.02	4.51	.07										
41	.67							2.05	.03	15	6.15							.43	.18
575	42.02				4	4	.06	32.65	.53	105	43.05							1.46	.60
1	.02							.01	.00										
89	1.45	5	4	.06				6.86	.11	1	.41							.41	.17
10	.16							.50	.01										
57	.93	5	4	.06				5.68	.09	1	.41							.41	.17
22	.36							.68	.01										
19	.31	1	1	.02	1	1	.02	.73	.01										
51	.83							.78	.01										
46	.75							1.42	.02										
501	8.18							22.52	.37	10	4.10							.33	.14
4	.07				4	4	.06	.15	.00										
1	.02							.02	.00										
167	2.72	153	97	1.56	23	17	.27	136.29	2.22	4	1.64	17	11	4.51	7	1	0.41	12.34	5.06
154	2.51	144	92	1.48	18	13	.21	132.35	2.16	3	1.23	16	11	4.51	5			12.00	4.92
					2	1	.02	.26	.00	1	.41				1			.01	.00
13	.21	9	5	.09	3	3	.05	3.69	.05			1			1	1	.41	.34	.14
153	84.08	70	53	.85	3	3	.05	244.13	3.98	175	71.75	7	4	1.64	1	1	.41	10.27	4.22
69	17.44	41	32	.51	2	2	.03	75.18	1.23	30	12.30	5	3	1.23	1	1	.41	2.87	1.18
64	15.73	1	1	.02				43.71	.71	43	17.63	1	1	.41				2.07	.85
20	50.91	28	20	.32	1	1	.02	125.24	2.04	102	41.82	1						5.35	2.19
16	.26	5	5	.08	8	8	.13	4.21	.07	1	.41				1	1	.41	.01	.00
86	1.40				1	1	.02	2.19	.04	5	2.05							.19	.08
11	6.71	19	17	.27				29.13	.48	13	5.33							1.21	.50
45	5.63	5	4	.06				21.17	.35	9	3.69							.62	.25
66	1.08	14	13	.21				7.97	.13	4	1.64							.60	.24
13	.21	2	1	.02	3	3	.05	1.55	.03										
16	.26	10	8	.13				4.75	.08										
27	13.49	24	13	.21	4	4	.06	13.48	.22	6	2.46							.04	.02
4	.07							1.59	.01										
25	.41	8	2	.03				2.12	.03			1						.15	.06
2	.03	2	2	.03				1.05	.02										
23	.38	6	6	.10	9	9	.14	3.07	.05			1						.11	.04
9	.15	3	2	.03				2.45	.04										
3	.05	4	2	.03				1.31	.02	1	.41	1	1	.41				.23	.09
7	.11				6	6	.10	.16	.00										
10	.16				1	1	.02	1.17	.02	3	1.23	3	3	1.23				.68	.28
89	3.08	283	155	2.49	4	3	.05	56.14	.92	5	2.05	21	9	3.69	1			4.19	1.72
71	1.16	61	37	.59				9.65	.16	3	1.23	4	2	.82				.68	.28
38	5.52	23	16	.26				17.27	.28	17	6.97							.40	.17
33	3.80	1	1	.02				4.49	.07	18	7.38	1	1	.41				.78	.32
6	.10	1						.53	.01										
3	.05							.09	.00	1	.41							.20	.08
5	.08	2	1	.02				.60	.01										
65	1.06	43	25	.40	17	17	.27	10.36	.17	2	.82	4	4	1.64	2	2	.82	1.02	.42
9	.15	1	1	.02	2	2	.03	.27	.00										
10	.16	3	1	.02	4	4	.06	2.38	.04	1	.41				1	1	.41	.07	.03
2	.03	2	1	.02	1	1	.02	.24	.00										

xcluding those occurring in the United States proper from commands on duty in Alaska or insular essions.

TABLE No. 71.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
continental, excludir

Serial Nos.	International classification.		United States, total enlisted men, white and colored									
		Mean strength	S. G. O., 63,725—A. G. O., 64,636.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffectiv	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
181	83b	Hemorrhoids	376	5.90							10.66	0.
183	83d	Varicose veins	38	.60	2	2	0.03				2.12	.
184	83e	Varicocele	162	2.54	2	1	.02				8.69	.
185-187	84	Diseases of the lymphatic system	361	5.66	2						19.30	.
193-199	86	Diseases of the nasal fossæ	1,015	15.93	2	1	.02				16.39	.
200-202	87	Diseases of the larynx	193	3.03	1						3.55	.
203-204	88	Diseases of the thyroid body	8	.13	7	3	.05				1.86	.
205-206	89-90	Bronchitis	2,353	36.92	5	2	.03	1	1	0.02	39.70	.
207	91	Broncho-pneumonia	44	.69	1	1	.02	5	5	.08	3.37	.
208	92	Pneumonia	175	2.75				27	27	.42	12.84	.
209-215	93	Pleurisy	173	2.71	7	7	.11	3	3	.05	14.61	.
216-217	94	Pulmonary congestion and pulmonary apoplexy.	1	.02							.01	.
219	96	Asthma	51	.80	14	6	.09				4.17	.
220	97	Pulmonary emphysema	2	.03							.08	.
221	98a	Hæmoptysis	5	.08							.44	.
222	98b	Hay fever	1	.02							.01	.
224-227	99a	Diseases of the teeth and gums	336	5.27	1	1	.02				6.21	.
228-231	99b	Other diseases of the mouth and annexa.	61	.96							1.50	.
232-236	100	Diseases of the pharynx	4,613	72.38	1	1	.02	1	1	.02	64.05	1.
238	102	Ulcer of the stomach	14	.22	5	2	.03	1	1	.02	3.17	.
239-241	103	Other diseases of stomach (cancer excepted).	830	13.02	7	6	.09	1	1	.02	14.98	.
245-253	105	Diarrhea and enteritis	2,054	32.23	1			4	3	.05	26.23	.
254	106	Ankylostomiasis	20	.31	1	1	.02				1.72	.
255-259	107	Intestinal parasites	64	1.00							.96	.
260	108	Appendicitis	476	7.47	4	1	.02	10	10	.15	34.42	.
261-263	109	Hernia	248	3.89	19	17	.26	2	2	.03	25.54	.
264-267	110a	Diseases of the anus and fecal fistula.	58	.91							3.69	.
268-272	110b	Other diseases of the intestines	1,466	23.00	6	2	.03				19.57	.
275	113	Cirrhosis of liver	5	.08	1	1	.02	1	1	.02	.66	.
276	114	Biliary calculi	4	.06	1	1	.02				.49	.
277-281	115	Other diseases of liver and gall bladder.	246	3.86	2	2	.03	1	1	.02	10.93	.
283-284	117	Simple peritonitis	1	.02				1	1	.02	.07	.
288	119	Acute nephritis	17	.27				3	3	.05	1.28	.
289-291	120	Bright's disease	35	.55	12	10	.15	8	8	.12	7.48	.
293-299	122	Other diseases of the kidney and annexa.	18	.28	1	1	.02				1.94	.
303-306	124	Diseases of the bladder	126	1.98	33	27	.42				8.23	.
304	124b	Enuresis	74	1.16	33	27	.42				6.23	.
307-309	125	Diseases of the urethra, urinary abscess, etc	75	1.18	1	1	.02				2.49	.
310-312	126	Diseases of the prostate	9	.14	1						1.08	.
313-319	127	Diseases of the male genital organs (nonvenereal)	284	4.46	1	1	.02				8.57	.
322-323	143	Furuncle and carbuncle	1,126	17.66							19.31	.
324-325	144	Acute abscess and cellulitis	811	12.72	1	1	.02	2	2	.03	20.72	.
352-357	146	Diseases of the bones	131	2.06	6	4	.06	1	1	.02	9.30	.
358-360	147	Diseases of the joints	260	4.08	23	20	.31				22.24	.
367	149g	Flat foot	143	2.24	118	77	1.19				21.20	.
372	150	Congenital malformations	226	3.55	1	1	.02				6.64	.
373-374	154	Senility	2	.03							.03	.
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	109	1.71							2.13	.
379	189Ba	Under observation, undiagnosed and unknown	62	.97				1	1	.02	3.23	.
380	189Bb	Malingering	21	.33							.73	.

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[1] Including those occurring in the United States proper from commands on duty in Alaska or inst
possessions.

os per 1,000 of mean strength, for enlisted American troops serving in the United States aska, for the year 1915—Continued.

United States, white, enlisted men.										United States, colored, enlisted men.									
S. G. O., 61,286—A. G. O., 62,197.										S. G. O., 2,439—A. G. O., 2,439.									
missions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
		Number.			Number.							Number.			Number.				
	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.	Ratio.	Number.	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.	Ratio.
40	5.55							9.74	0.16	36	14.76							0.92	0.38
38	.62	2	2	0.03				2.12	.03										
60	2.61	2	1	.02				8.66	.14	2	.82							.04	.02
56	5.81	2						18.95	.31	5	2.05							.35	.14
85	16.07	1						16.01	.26	30	12.30	1	1	0.41				.38	.15
83	2.99	1						3.26	.05	10	4.10							.29	.12
8	.13	7	3	.05				1.85	.03										
72	37.07	5	2	.03	1	1	0.02	38.14	.62	81	33.21							1.57	.64
43	.70	1	1	.02	4	4	.06	3.29	.05	1	.41				1	1	0.41	.08	.03
64	2.68				25	25	.40	11.48	.19	11	4.51				2	2	.82	1.35	.55
61	2.63	7	7	.11	3	3	.05	14.29	.23	12	4.92							.32	.13
1	.02							.01	.00										
50	.82	12	6	.10				3.99	.07	1	.41	2						.18	.07
2	.03							.08	.00										
5	.08							.44	.01										
1	.02							.01	.00										
17	5.17	1	1	.02				5.93	.10	19	7.79							.28	.11
59	.96							1.42	.02	2	.82							.08	.03
34	73.98	1	1	.02	1	1	.02	6.25	1.02	79	32.39							1.52	.62
13	.21	5	2	.03	1	1	.02	3.15	.05	1	.41							.02	.01
9	12.87	7	6	.10				14.40	.24	41	16.81				1	1	.41	.58	.24
68	32.12	1			4	3	.05	25.23	.41	86	35.26							.99	.41
19	.31	1	1	.02				1.70	.03	1	.41							.01	.00
63	1.03							.95	.02	1	.41							.01	.00
71	7.69	4	1	.02	10	10	.16	33.32	.54	5	2.05							1.10	.45
17	4.03	18	16	.26	2	2	.03	25.18	.41	1	.41	1	1	.41				.36	.15
53	.86							3.43	.06	5	2.05							.25	.10
0	23.01	5	2	.03				18.40	.30	56	22.96	1						1.18	.48
5	.08	1	1	.02	1	1	.02	.66	.01										
4	.07	1	1	.02				.48	.01										
34	3.82	2	2	.03	1	1	.02	10.15	.17	12	4.92							.78	.32
1	.02				1	1	.02	.07	.00										
6	.26				3	3	.05	1.19	.02	1	.41							.09	.04
3	.54	12	10	.16	8	8	.13	7.18	.12	2	.82							.30	.12
7	.28	1	1	.02				1.90	.03	1	.41							.04	.02
5	2.04	33	27	.43				8.22	.13	1	.41							.01	.00
3	1.19	33	27	.43				.62	.10	1	.41							.00	.00
2	1.17	1	1	.02				2.36	.04	3	1.23							.13	.05
9	.15	1						1.08	.02										
6	4.50	1	1	.02				8.22	.13	8	3.28							.35	.14
1	18.13							19.05	.31	15	6.15							.22	.09
9	13.04	1	1	.02	2	2	.03	20.35	.34	12	4.92							.37	.15
1	2.14	5	4	.06	1	1	.02	9.04	.15			1						.26	.11
6	4.18	21	20	.32				21.51	.35	4	1.64							.73	.30
1	2.30	107	71	1.14				1.86	.30	2	.82	11	6	2.46				2.56	1.05
8	3.39	1	1	.02				6.23	.10	18	7.38							.41	.17
2	.03							.03	.00										
4	1.53							1.85	.03	15	6.15							.28	.11
2	1.01				1	1	.02	2.89	.05									.35	.14
1	.34							.73	.01										

cluding those occurring in the United States proper from commands on duty in Alaska or insular sions.

TABLE NO. 71.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit* *continental, excludin*

United States, total enlisted men, white and colored.

Serial Nos.	International classification.	Mean strength / Causes of admission to sick report.	Admissions. Number.	Admissions. Ratio.	Discharges. Number. (1)	Discharges. Number. (2)	Discharges. Ratio.	Deaths. Number. (1)	Deaths. Number. (2)	Deaths. Ratio.	Noneffective. Number.	Noneffective. Ratio.
		Mean strength	S. G. O., 63,725—A. G. O., 64,636.									
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]										
426–434	155–163	Suicides, all	11	0.17				38	38	0.59		
435	164	Poisoning by food	83	1.30				1	1	.02		
436	165a	Venomous bites and stings	53	.83								
437	165b	Other poisoning (deleterious gases excepted)	32	.50				5	5	.08		
439	167	Burns (conflagrations excepted)	258	4.05	3	3	0.05					
440	168	Absorption of deleterious gases	2	.03								
441	168a	Suffocation, strangulation	3	.05				2	2	.03		
442	169	Drowning, accidental						25	25	.39		
443	170	Traumatism by firearms (other than specified)	217	3.40	27	24	.37	12	12	.19		
444	170a	Shot by sentry or guard	4	.06				2	2	.03		
445	171	Traumatism by cutting or piercing instruments	583	9.15	6	3	.05	1	1	.02		
446	172	Traumatism by fall	2,554	40.07	26	22	.34	7	7	.11		
448	174	Traumatism by machines	63	.99	2	2	.03					
449	175	Traumatism by other crushing	364	5.71	24	15	.23	22	22	.34		
450	176	Injuries by animals	1,018	15.97	9	9	.14	4	4	.06		
452	178	Effects of excessive cold	6	.09								
453	179	Effects of heat	56	.88								
455	181	Effects of electricity	1	.02								
456–458	182–4	Homicides, all	5	.08				17	17	.27		
460	186	Other external violence	3,466	54.38	14	11	.17	9	9	.14		
462–466		Killed or wounded in action	18	.28	1	1	.02	11	11	.17		
462		By bullet	18	.28	1	1	.02	11	11	.17		
		DISEASES AND INJURIES GROUPED.										
		General diseases	12,464	195.59	336	228	3.53	84	72	1.11	601.70	9.
	1–19	Epidemic diseases	5,516	86.56	14	13	.20	28	28	.43	135.77	2.
	20–59	Other general diseases	6,948	109.03	322	215	3.33	56	44	.68	465.93	7.
		Diseases of the nervous system and organs of special sense	1,727	27.10	482	286	4.42	20	18	.28	143.59	2.
	60–74	Of the nervous system	828	12.99	439	253	3.91	20	18	.28	107.18	1.
	75	Of the eye and its annexa	574	9.01	24	20	.31				22.66	.
	76	Of the ear and its annexa	325	5.10	19	13	.20				13.75	.
	77–85	Diseases of the circulatory system	1,114	17.48	63	37	.57	27	27	.42	59.44	
	86–98	Diseases of the respiratory system	4,034	63.30	38	20	.31	36	36	.56	97.46	1.
	99–118	Diseases of the digestive system	10,517	165.03	54	38	.59	25	24	.37	15.74	3.
	119–127	Diseases of the genito-urinary system	602	9.45	53	44	.68	12	12	.19	34.36	
	142–145	Diseases of the skin and cellular tissue	3,428	53.79	7	6	.09	2	2	.03	82.47	1
	146–149	Diseases of the organs of locomotion	1,641	25.75	165	111	1.72	1	1	.02	81.95	1
	150	Malformations, etc	226	3.55	1	1	.02				6.64	
	154	Diseases, results of old age	2	.03							.03	
	189	Ill-defined diseases	217	3.40				1	1	.02	6.39	
		Total for disease	35,972	564.49	1,199	771	11.93	208	193	2.99	1,329.77	20
	155–186	External causes	8,891	139.52	139	108	1.67	156	156	2.41	310.44	
		Total for disease and external causes	44,863	704.01	1,338	879	13.60	364	349	5.40	1,640.21	2

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[1] Including those occurring in the United States proper from commands on duty in Alaska or in possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or in possessions.

ios per 1,000 of mean strength, for enlisted American troops serving in the United States,
aska, for the year 1915—Continued.

United States, white, enlisted men.										United States, colored, enlisted men.									
S. G. O., 61,286—A. G. O., 62,197.										S. G. O., 2,439—A. G. O., 2,439.									
missions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
umber.	Ratio.	Number. (¹)	Number. (²)	Ratio.	Number. (¹)	Number. (²)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (¹)	Number. (²)	Ratio.	Number. (¹)	Number. (²)	Ratio.	Number.	Ratio.
11	.19				38	38	.61												
80	1.31				1	1	.02			3	1.23								
53	.86																		
30	.49				5	5	.08			2	.82								
253	4.13	3	3	.05						5	2.05								
2	.03																		
3	.05				2	2	.03												
					25	25	.40												
207	3.38	25	22	.35	11	11	.18			10	4.10	2	2	.82	1	1	.41		
3	.05				2	2	.03			1	.41								
559	9.12	5	2	.03	1	1	.02			24	9.84	1	1	.41					
435	39.73	24	20	.32						119	48.79	2	2	.82					
60	.98	2	2	.03						3	1.23								
357	5.83	23	14	.23	22	22	.35			7	2.87	1	1	.41					
941	15.35	8	8	.13	4	4	.06			77	31.57	1	1	.41					
6	.10																		
54	.88									2	.82								
1	.02																		
3	.05				16	16	.26			2	.82				1	1	.41		
368	54.96	14	11	.18	9	9	.14			98	40.18								
17	.28	1	1	.02	11	11	.18			1	.41								
17	.28	1	1	.02	11	11	.18			1	.41								
104	197.50	311	212	3.42	75	69	1.11	574.24	9.37	360	147.60	25	15	6.15	9	3	1.23	27.46	11.26
360	87.46	14	13	.21	28	28	.45	132.55	2.16	156	63.96							3.22	1.32
744	110.04	297	200	3.22	47	41	.66	441.70	7.21	204	83.64	25	15	6.15	9	3	1.23	24.23	9.94
656	27.02	447	266	4.28	19	18	.29	133.78	2.18	71	29.11	35	20	8.20	1			9.31	4.03
88	12.86	408	237	3.81	19	18	.29	99.97	1.63	40	16.40	31	16	6.56	1			7.21	2.96
545	8.89	20	16	.26				20.08	.33	29	11.89	4	4	1.64				2.58	1.06
323	5.27	19	13	.21				13.72	.22	2	.82							.02	.01
67	17.41	59	33	.53	24	24	.39	56.84	.93	47	19.27	4	4	1.64	3	3	1.23	2.60	1.07
88	63.44	35	19	.31	33	33	.53	93.31	1.52	146	59.86	3	1	.41	3	3	1.23	4.15	1.70
208	166.57	52	37	.59	24	23	.37	208.58	3.40	309	126.69	2	1	.41	1	1	.41	7.16	2.94
586	9.56	53	44	.71	12	12	.19	33.43	.55	16	6.56							.93	.38
366	54.93	7	6	.10	2	2	.03	79.68	1.30	62	25.42							2.79	1.14
600	26.11	151	105	1.69	1	1	.02	77.56	1.27	41	16.81	14	6	2.46				4.40	1.80
208	3.39	1	1	.02				6.23	.10	18	7.38							.41	.17
2	.03							.03	.00										
202	3.30				1	1	.02	5.77	.09	15	6.15							.62	.26
87	569.25	1,116	724	11.64	191	183	2.94	1,269.43	20.71	1,085	444.85	83	47	19.27	17	10	4.10	60.34	24.74
35	139.27	130	99	1.59	154	154	2.48	294.54	4.81	356	145.96	9	9	3.69	2	2	.82	15.90	6.52
22	708.51	1,246	823	13.23	345	337	5.42	1,563.92	25.52	1,441	590.81	92	56	22.96	19	12	4.92	76.24	31.26

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[3] Noneffectiveness for individual external causes not tabulated.

TABLE NO. 71½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
grand total

Serial Nos.	International classification.		Philippine Islands, officers.								
		Mean strength	S. G. O., 666—A. G. O., 674.								
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.			Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number. (1)	(2)	Ratio.	Number.	Ratio.
2	1a	Paratyphoid fever									
5	2	Typhus fever									
7-11	4	Malaria	24	36.04						0.71	1.06
7		Estivo-autumnal fever	10	15.02						.32	.47
8		Malarial cachexia	2	3.00						.15	.22
9		Quartan malarial fever									
10		Tertian malarial fever	7	10.51						.13	.19
11		Undetermined malarial fever	5	7.51						.12	.18
12	5	Smallpox and varioloid									
13	5b	Vaccinia									
14	6	Measles								.05	.08
17	9	Diphtheria	1	1.50						.05	.07
18	10	Influenza	3	4.50						.02	.03
19	12	Asiatic cholera									
21-23	14	Dysentery	5	7.51						.29	.44
21		Bacillary									
22		Entamœbic	5	7.51						.29	.44
23		Unclassified									
27	18	Erysipelas									
29	19b	Dengue	85	127.63						1.54	2.32
31	19d	German measles									
34	19g	Mumps	2	3.00						.06	.09
37	20	Purulent infection and septicemia									
49-57	28-34	Tuberculosis, all									
49-51	28	Tuberculosis of lungs									
53-57	30-34	Tuberculosis of other organs									
59-74	37-38	Venereal diseases, all	6	9.01						.40	.6
59-64	37	Syphilis	2	3.00						.26	.3
65-67	38a	Soft chancre									
68-71	38b	Gonococcus infection	4	6.01						.14	.2
75-79	39-45	Cancer and other malignant tumors									
80	46	Benign tumors									
81-85	47-48	Rheumatism, articular, all	1	1.50						.22	.3
81-82	47	Acute articular rheumatism									
83-85	48	Chronic articular rheumatism	1	1.50						.22	.3
89	51	Exophthalmic goitre									
97-100	56	Alcoholism and results	1	1.50						.01	.0
103-104	59	Other chronic poisoning, including drug habit									
109	62	Locomotor ataxia									
110-115	63	Other diseases of spinal cord									
116	64	Cerebral hemorrhage, apoplexy	1	1.50			1	1	1.48	.09	.1
117-119	66	Paralysis without specified cause									
120-126	67-68	Mental alienation	1	1.50						.03	.0
127	69	Epilepsy									
129-133	73	Neuralgia and neuritis	3	4.50						.02	.0
138-141	75a	Conjunctivitis	6	9.01						.04	.0
142	75b	Trachoma									
166	77	Pericarditis									
167	78	Acute endocarditis									
169-174	79	Organic heart disease	2	3.00			1	1	1.48	.10	.1
175	80	Angina pectoris	1	1.50						.01	.0
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	1	1.50						.01	.0
181	83b	Hemorrhoids	6	9.01						.19	.2
183	83d	Varicose veins									
184	83e	Varicocele									
185-187	84	Diseases of the lymphatic system									
193-199	86	Diseases of the nasal fossæ	12	18.02						.08	.1
200-202	87	Diseases of the larynx	4	6.01						.05	.
203-204	88	Diseases of the thyroid body									
205-206	89-90	Bronchitis	27	40.54						.52	.

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[1] Number of discharges and deaths which actually occurred.

atios per 1,000 of mean strength, for the Philippine Islands, officers, total enlisted and
ear 1915.

Philippine Islands, total enlisted (including Philippine Scouts).										Philippine Islands, total officers and enlisted men (including scouts).									
S. G. O., 17,339—A. G. O., 17,394.										S. G. O., 18,005—A. G. O., 18,068.									
Admissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
3	0.17							0.29	0.02	3	0.17							0.29	0.02
3	.17							.13	.01	3	.17							.13	.01
1,188	68.52							21.97	1.27	1,212	67.31							22.68	1.26
213	12.28							4.97	.29	223	12.38							5.29	.29
5	.29							.21	.01	7	.39							.36	.02
8	.46							.13	.01	8	.44							.13	.01
884	50.98							15.29	.88	891	49.49							15.41	.86
78	4.50							1.37	.08	83	4.61							1.49	.08
																		.07	.00
6	.35							.18	.01	6	.33							.18	.01
31	1.79							2.19	.13	31	1.72							2.24	.12
1	.06				1	1	0.06	.02	.00	2	.11				1	1	0.06	.07	.00
47	2.71							.96	.06	50	2.78							.98	.05
2	.12				1	1	.06	.03	.00	2	.11				1	1	.06	.03	.00
118	6.81		1	0.06	3	3	.17	6.73	.39	123	6.83		1	0.06	3	3	.17	7.01	.39
23	1.33							1.29	.07	23	1.28							1.29	.07
86	4.96		1	.06	2	2	.11	5.03	.29	91	5.05		1	.06	2	2	.11	5.32	.30
9	.52				1	1	.06	.40	.03	9	.50				1	1	.06	.40	.02
1	.06							.01	.00	1	.06							.01	.00
1,646	94.93							24.55	1.42	1,731	96.14							26.09	1.45
2	.12							.06	.00	2	.11							.06	.00
171	9.86							10.77	.62	173	9.61							10.84	.60
3	.17				3	3	.17	.05	.00	3	.17				3	3	.17	.05	.00
101	5.82	25	64	3.68		6	.34	9.11	.53	101	5.61	25	64	3.68		6	.33	9.11	.51
99	5.71	25	63	3.62		6	.34	8.68	.50	99	5.50	25	63	3.62		6	.33	8.68	.48
2	.12		1	.06				.42	.02	2	.12		1	.06				.42	.01
2,394	138.07	1	12	.69	1	1	.06	106.67	6.15	2,400	133.29	1	12	.69	1	1	.06	107.07	5.95
513	29.59		6	.34	1	1	.06	25.20	1.45	515	28.60		6	.34	1	1	.06	25.46	1.41
467	26.93							14.69	.85	467	25.94							14.69	.82
1,414	81.55	1	6	.34				66.78	3.85	1,418	78.76	1	6	.34				66.92	3.72
2	.12							.39	.02	2	.11							.39	.02
26	1.50							1.15	.07	26	1.44							1.15	.06
42	2.42		1	.06				3.10	.18	43	2.39		1	.06				3.33	.19
33	1.90		1	.06				1.94	.11	33	1.83		1	.06				1.94	.11
9	.52							1.16	.07	10	.56							1.39	.08
4	.23		1	.06				.33	.02	4	.22		1	.06				.33	.02
215	12.40							2.50	.14	216	12.00		6	.34				2.51	.14
5	.29		6	.34				.26	.02	5	.28		6	.34				.26	.01
3	.17		1	.06				.21	.01	3	.17		1	.06				.21	.01
3	.17		1	.06	1	1	.06	.15	.01	3	.17		1	.06	1	1	.06	.15	.01
										1	.06				1	1	.06	.09	.00
2	.12				1	1	.06	.21	.01	2	.11				1	1	.06	.21	.01
99	5.71	16	111	6.38				7.55	.44	100	5.55	16	111	6.38				7.58	.42
21	1.21	1	17	.98				1.55	.09	21	1.17	1	17	.98				1.55	.09
53	3.06	2	6	.34				2.35	.14	56	3.11	2	6	.34				2.38	.13
136	7.84							2.18	.13	142	7.89							2.21	.12
7	.40							.36	.02	7	.39							.36	.02
2	.12				1	1	.06	.32	.02	2	.11				1	1	.06	.32	.02
2	.12		1	.06				.02	.00	2	.11		1	.06				.02	.00
18	1.04		8	.46				1.56	.09	20	1.11		8	.46	1	1	.06	1.66	.09
1	.06							.00	.00	2	.11							.01	.00
2	.12	1	1	.06	1	1	.06	.19	.01	3	.17	1	1	.06	1	1	.06	.20	.01
66	3.81							1.95	.11	72	4.00							2.15	.12
9	.52	1	1	.06				.72	.04	9	.50	1	1	.06				.72	.04
46	2.65							1.82	.12	46	2.55							1.82	.12
135	7.79							5.88	.34	135	7.50							5.88	.33
103	5.94	1	1	.06				1.47	.08	115	6.39	1	1	.06				1.55	.09
29	1.67							.67	.04	33	1.83							.72	.04
2	.12							.21	.01	2	.11							.21	.01
574	33.10		1	.06				11.86	.68	601	33.38		1	.06				12.38	.69

Number of discharges and deaths, including those of cases invalided home and deducted from the
ited States.

TABLE No. 71½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with grand total,*

Serial Nos.	International classification.	Mean strength	Philippine Islands, officers.								
			S. G. O., 666—A. G. O., 674.								
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.			Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.	Ratio.
							(1)	(2)			
207	91	Broncho-pneumonia	1	1.50						.04	.06
208	92	Pneumonia									
209-215	93	Pleurisy									
216-217	94	Pulmonary congestion and pulmonary apoplexy									
219	96	Asthma									
220	97	Pulmonary emphysema	1	1.50						.16	.23
221	98a	Hæmoptysis									
224-227	99a	Diseases of the teeth and gums	5	7.51						.05	.08
228-231	99b	Other diseases of the mouth and annexa	1	1.50						.01	.02
232-236	100	Diseases of the pharynx	19	28.53						.22	.34
238	102	Ulcer of stomach	2	3.00						.24	.35
239-244	103	Other diseases of stomach (cancer excepted)	11	16.52						.15	.23
245-253	105	Diarrhea and enteritis	34	51.05						.51	.77
254	106	Ankylostomiasis									
255-259	107	Intestinal parasites	1	1.50						.00	.00
260	108	Appendicitis	18	27.03						1.50	2.26
261-263	109	Hernia	1	1.50						.26	.39
264-267	110a	Diseases of the anus and fecal fistula	5	7.51						.36	.53
268-272	110b	Other diseases of the intestines	23	34.53						.55	.82
276	114	Biliary calculi	2	3.00						.02	.03
277-281	115	Other diseases of liver and gall bladder	6	9.01						.28	.42
288	119	Acute nephritis	2	3.00						.04	.06
289-291	120	Bright's disease	1	1.50						.01	.01
293-299	122	Other diseases of the kidney and annexa	2	3.00						.06	.09
303-306	124	Diseases of the bladder	2	3.00						.08	.13
304	124b	Enuresis									
307-309	125	Diseases of the urethra, urinary abscess, etc	4	6.01						..17	.26
310-312	126	Diseases of the prostate									
313-319	127	Diseases of the male genital organs (nonvenereal)									
322-323	143	Furuncle and carbuncle	15	22.52						.26	.39
324-325	144	Acute abscess and cellulitis	12	18.02						.28	.42
352-357	146	Diseases of the bones	3	4.50						.15	.22
358-360	147	Diseases of the joints	5	7.50						.36	.55
367	149g	Flat foot									
372	150	Congenital malformations	1	1.50						.02	.04
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	7	10.51						.10	.15
379	189Ba	Under observation, undiagnosed and unknown	2	3.00						.05	.07
380	189Bb	Malingering									
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[5]									
426-434	155-163	Suicides, all									
435	164	Poisoning by food	6	9.01							
436	165a	Venomous bites and stings	2	3.00							
437	165b	Other poisoning (deleterious gases excepted)									
438	166	Conflagration									
439	167	Burns (conflagrations excepted)	2	3.00							
441	168a	Suffocation, strangulation									

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from th United States.

ratios per 1,000 of mean strength, for the Philippine Islands. officers, total enlisted and year 1915—Continued.

Philippine Islands, total enlisted (including Philippine Scouts). S. G. O., 17,339—A. G. O., 17,394.										Philippine Islands, total officers and enlisted men (including scouts). S. G. O., 18,005—A. G. O., 18,068.									
Admissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
11	.63							.72	.04	12	.67							.76	.04
37	2.13				1	1	.06	2.89	.17	37	2.05				1	1	.06	2.89	.16
56	3.24							2.76	.16	56	3.11							2.76	.15
1	.06							.03	.00	1	.06							.03	.00
18	1.04	1	5	.29				.90	.05	18	1.00	1	5	.29				.90	.05
										1	.06							.16	.01
2	.12							.03	.00	2	.11							.03	.00
77	4.44							1.55	.09	82	4.55							1.60	.09
20	1.15							.48	.03	21	1.17							.49	.03
711	41.01							10.16	.59	730	40.54							10.38	.58
2	.12		2	.11				.28	.02	4	.22		2	.11				.52	.03
155	8.93		1	.06	1	1	.06	2.89	.17	166	9.22		1	.06	1	1	.06	3.04	.17
656	37.83							8.49	.49	690	38.32							9.00	.50
69	3.98	1	1	.06	1	1	.06	1.68	.10	69	3.83	1	1	.06	1	1	.06	1.68	.09
46	2.65							.98	.06	47	2.61							.98	.05
144	8.30		1	.06	1	1	.06	11.43	.66	162	9.00		1	.06	1	1	.06	12.94	.72
34	1.96		2	.11				3.61	.21	35	1.94		2	.11				3.87	.21
12	.69							.48	.03	17	.94							.84	.05
1,084	62.52		2	.11				12.81	.74	1,107	61.48		2	.11				13.36	.74
3	.17							.28	.02	5	.28							.30	.02
80	4.61							4.35	.25	86	4.78							4.62	.26
9	.52				1	1	.06	.30	.02	11	.61				1	1	.06	.33	.02
12	.69		1	.06	2	2	.11	.82	.05	13	.72		1	.06	2	2	.11	.83	.05
4	.23							.53	.03	6	.33							.59	.03
32	1.85		4	.23				1.85	.11	34	1.89		4	.23				1.94	.11
14	.81		4	.23				.89	.05	14	.78		4	.23				.89	.05
29	1.67							.45	.03	33	1.83							.62	.03
5	.29		1	.06				.25	.01	5	.28		1	.06				.25	.01
60	3.46							1.58	.09	60	3.33							1.58	.09
303	17.47							5.85	.34	318	17.66							6.11	.34
455	26.24							12.12	.70	467	25.93							12.40	.69
81	4.67	1	2	.11				2.59	.15	84	4.67	1	2	.11				2.74	.15
61	3.52	1	3	.17				4.93	.28	66	3.67	1	3	.17				5.29	.29
64	3.69		27	1.55				3.92	.23	64	3.55		27	1.55				3.92	.22
70	4.04	1	1	.06				2.64	.15	71	3.94	1	1	.06				2.66	.15
83	4.79							1.62	.09	90	5.00							1.72	.10
11	.63							.78	.04	13	.72							.83	.05
7	.40							.16	.01	7	.39							16	.01
1	.06				7	7	.40			1	.06				7	7	.39		
138	7.96									144	8.00								
15	.87									17	.94								
13	.75									13	.72								
2	.12									2	.11								
56	3.23				1	1	.06			58	3.22				1	1	.06		
1	.06									1	.06								

[3] Noneffectiveness for external individual causes not tabulated.

TABLE No. 71½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with grand total,*

Serial Nos.	International classification.		Philippine Islands, officers.								
		Mean strength	S. G. O., 666—A. G. O., 674.								
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.			Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.	Ratio.
							(1)	(2)			
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.									
442	169	Drowning, accidental	.....	.....	.....	.....	.....	.....	.....	.....	.....
443	170	Traumatism by firearms (other than specified)	1	1.50	.....	.....	.....	.....	.....	.....	.....
445	171	Traumatism by cutting or piercing instruments	1	1.50	.....	.....	.....	.....	.....	.....	.....
446	172	Traumatism by fall	25	37.54	.....	.....	.....	.....	.....	.....	.....
448	174	Traumatism by machines	.....	.....	.....	.....	.....	.....	.....	.....	.....
449	175	Traumatism by other crushing	6	9.01	.....	.....	.....	.....	.....	.....	.....
450	176	Injuries by animals	.....	.....	.....	.....	.....	.....	.....	.....	.....
453	179	Effects of heat	.....	.....	.....	.....	.....	.....	.....	.....	.....
456–458	182–4	Homicides, all	.....	.....	.....	.....	.....	.....	.....	.....	.....
459	185	Fractures, causes not specified	.....	.....	.....	.....	.....	.....	.....	.....	.....
460	186	Other external violence	26	39.04	.....	.....	.....	.....	.....	.....	.....
462–466		Killed or wounded in action	.....	.....	.....	.....	.....	.....	.....	.....	.....
462		By bullet	.....	.....	.....	.....	.....	.....	.....	.....	.....
		DISEASES AND INJURIES GROUPED.									
		General diseases	129	193.70	.....	.....	.....	.....	.....	3.36	5.04
	1–19	Epidemic diseases	121	181.68	.....	.....	.....	.....	.....	2.73	4.10
	20–59	Other general diseases	8	12.01	.....	.....	.....	.....	.....	.63	.95
		Diseases of the nervous system and organs of special sense	28	42.05	.....	.....	1	1	1.48	.90	1.35
	60–74	Of the nervous system	12	18.02	.....	.....	1	1	1.48	.68	1.03
	75	Of the eye and its annexa	11	16.52	.....	.....	.....	.....	.....	.12	.18
	76	Of the ear and its annexa	5	7.51	.....	.....	.....	.....	.....	.10	.14
	77–85	Diseases of the circulatory system	10	15.02	.....	.....	1	1	1.48	.32	.48
	86–98	Diseases of the respiratory system	45	67.57	.....	.....	.....	.....	.....	.84	1.26
	99–118	Diseases of the digestive system	128	192.19	.....	.....	.....	.....	.....	4.15	6.24
	119–127	Diseases of the genito-urinary system	12	18.02	.....	.....	.....	.....	.....	.37	.55
	142–145	Diseases of the skin and cellular tissue	39	58.56	.....	.....	.....	.....	.....	.81	1.21
	146–149	Diseases of the organs of locomotion	20	30.03	.....	.....	.....	.....	.....	.64	.97
	150	Malformations, etc	1	1.50	.....	.....	.....	.....	.....	.02	.04
	189	Ill-defined diseases	9	13.51	.....	.....	.....	.....	.....	.15	.23
		Total for disease	421	632.13	.....	.....	2	2	2.97	11.56	17.36
	155–186	External causes	69	103.60	.....	.....	.....	.....	.....	2.15	3.23
		Total for disease and external causes	490	735.74	.....	.....	2	2	2.97	13.72	20.60

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[1] Number of discharges and deaths which actually occurred.

atios per 1,000 of mean strength, for the Philippine Islands, officers, total enlisted and ear 1915—Continued.

Philippine Islands, total enlisted (including Philippine Scouts).										Philippine Islands, total officers and enlisted men (including scouts).									
S. G. O., 17,339—A. G. O., 17,394.										S. G. O., 18,005—A. G. O., 18,068.									
Admissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
.....	.....	.....	.....	.....	3	3	.17	.....	.....	.....	.....	.....	.....	.....	3	3	.17	.....	.....
22	1.27	1	2	.11	1	1	.06	.....	.....	23	1.28	1	2	.11	1	1	.06	.....	.....
184	10.61	.....	1	.06	1	1	.06	.....	.....	185	10.27	.....	1	.06	1	1	.06	.....	.....
463	26.70	2	5	.29	1	1	.06	.....	.....	488	27.10	2	5	.29	1	1	.06	.....	.....
3	.17	.....	.....	.....	.....	.....	.....	.....	.....	3	.17	.....	.....	.....	.....	.....	.....	.....	.....
119	6.86	.....	2	.11	3	3	.17	.....	.....	125	6.94	.....	2	.11	3	3	.17	.....	.....
63	3.63	.....	.....	.....	.....	.....	.....	.....	.....	63	3.50	.....	.....	.....	.....	.....	.....	.....	.....
55	3.17	.....	.....	.....	.....	.....	.....	.....	.....	55	3.05	.....	.....	.....	.....	.....	.....	.....	.....
3	.17	.....	.....	.....	4	4	.23	.....	.....	3	.17	.....	.....	.....	4	4	.23	.....	.....
3	.17	.....	.....	.....	.....	.....	.....	.....	.....	3	.17	.....	.....	.....	.....	.....	.....	.....	.....
746	43.03	.....	1	.06	.....	.....	.....	.....	.....	772	42.88	.....	1	.06	.....	.....	.....	.....	.....
1	.06	2	2	.11	.....	.....	.....	.....	.....	1	.06	2	2	.11	.....	.....	.....	.....	.....
1	.06	2	2	.11	.....	.....	.....	.....	.....	1	.06	2	2	.11	.....	.....	.....	.....	.....
6,058	349.39	28	95	5.46	10	16	.92	193.56	11.16	6,187	343.63	28	95	5.46	10	16	.89	196.92	10.94
3,261	188.07	2	3	.17	5	5	.29	69.23	3.99	3,382	187.84	2	3	.17	5	5	.28	71.96	4.00
2,797	161.32	26	92	5.29	5	11	.63	124.34	7.17	2,805	155.79	26	92	5.29	5	11	.61	124.97	6.94
712	41.06	21	151	8.68	2	2	.11	25.03	1.44	740	41.09	21	151	8.68	3	3	.17	25.93	1.44
238	13.72	19	144	8.27	2	2	.11	14.65	.84	250	13.88	19	144	8.28	3	3	.17	15.33	.85
284	16.38	2	3	.17	.....	.....	.....	5.79	.33	295	16.38	2	3	.17	.....	.....	.....	5.91	.33
190	10.96	.....	4	.23	.....	.....	.....	4.59	.26	195	10.83	.....	4	.23	.....	.....	.....	4.68	.26
297	17.13	2	12	.69	2	2	.11	13.15	.76	307	17.05	2	12	.69	3	3	.17	13.46	.75
837	48.27	3	9	.52	1	1	.06	21.82	1.26	882	48.99	3	9	.52	1	1	.06	22.67	1.26
3,094	178.44	1	9	.52	3	3	.17	59.46	3.43	3,222	178.94	1	9	.52	3	3	.17	63.62	3.53
155	8.94	.....	6	.34	3	3	.17	5.91	.34	167	9.28	.....	6	.34	3	3	.17	6.27	.35
1,248	71.98	1	1	.06	.....	.....	.....	33.99	1.96	1,287	71.48	1	1	.06	.....	.....	.....	34.79	1.93
388	22.38	2	36	2.07	.....	.....	.....	15.94	.92	408	22.66	2	36	2.07	.....	.....	.....	16.59	.92
70	4.04	1	1	.06	.....	.....	.....	2.64	.15	71	3.94	1	1	.06	.....	.....	.....	2.66	.15
106	6.11	.....	.....	.....	.....	.....	.....	2.59	.15	115	6.39	.....	.....	.....	.....	.....	.....	2.75	.15
2,965	747.74	59	320	18.40	21	27	1.55	374.10	21.57	13,386	743.46	59	320	18.40	23	29	1.61	385.67	21.42
1,915	110.44	5	19	1.09	21	21	1.21	57.18	3.30	1,984	110.19	5	19	1.09	21	21	1.16	59.33	3.30
4,880	858.18	64	339	19.49	42	48	2.77	431.28	24.87	15,370	853.65	64	339	19.49	44	50	2.77	444.99	24.72

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[2] Number of discharges and deaths, including those of cases invalided home and deducted from the nited States.

TABLE No. 72.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with white and colored,*

Serial Nos.	International classification.		Philippine Islands, total American, enlisted men, white and colored.									
		Mean strength	S. G. O., 11,834—A. G. O., 11,889.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
					Number.			Number.				
			Number.	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.	Ratio.
2	1a	Paratyphoid fever	1	0.08							0.09	0.01
7-11	4	Malaria	747	63.12							13.47	1.14
7		Estivo-autumnal fever	131	11.07							2.80	.24
8		Malarial cachexia	3	.25							.16	.01
9		Quartan malarial fever	4	.34							.06	.00
10		Tertian malarial fever	592	50.01							10.10	.85
11		Undetermined malarial fever	17	1.44							.35	[illegible]
12	5	Smallpox and varioloid									.07	.01
14	6	Measles	23	1.94							1.82	.15
17	9	Diphtheria	1	.08				1	1	0.08	.02	.0
18	10	Influenza	38	3.21							.74	.06
21-23	14	Dysentery	63	5.32		1	0.08	2	2	.17	3.63	.31
21		Bacillary	2	.17							.13	.01
22		Entamoebic	58	4.90		1	.08	2	2	.17	3.41	.29
23		Unclassified	3	.25							.10	.01
27	18	Erysipelas	1	.08							.01	.0
29	19b	Dengue	1,554	131.31							22.99	1.94
34	19g	Mumps	154	13.01							9.85	.83
37	20	Purulent infection and septicemia	3	.25				3	3	.25	.05	.0
49-57	28-34	Tuberculosis, all	76	6.42		39	3.28		6	.50	5.93	.5
49-51	28	Tuberculosis of lungs	74	6.25		38	3.20		6	.50	5.61	.47
53-57	30 34	Tuberculosis of other organs	2	.16		1	.08				.33	.0
59-74	37-38	Venereal diseases, all	2,205	186.32		11	.93	1	1	.08	95.88	8.1
59-64	37	Syphilis	482	40.73		6	.50	1	1	.08	22.40	1.8
65-67	38a	Soft chancre	450	38.02							13.84	1.17
68-74	38b	Gonococcus infection	1,273	107.57		5	.42				59.64	5.0
75-79	39-45	Cancer and other malignant tumors	2	.17							.39	.0
80	46	Benign tumors	11	.93							.59	.0
81-85	47-48	Rheumatism, articular, all	39	3.29		1	.08				2.95	.2
81-82	47	Acute articular rheumatism	30	2.53		1	.08				1.78	.1
83-85	48	Chronic articular rheumatism	9	.76							1.16	.1
89	51	Exophthalmic goitre	4	.34		1	.08				.33	.0
97-100	56	Alcoholism and results	214	18.08		6	.50				2.50	.2
103-104	59	Other chronic poisoning, including drug habit	5	.42		6	.50				.26	.0
109	62	Locomotor ataxia	3	.25		1	.08				.21	.0
110-115	63	Other diseases of spinal cord	3	.25		1	.08	1	1	.08	.15	.0
117-119	66	Paralysis without specified cause	1	.08							.06	.0
120-126	67-68	Mental alienation	86	7.27		95	7.99				6.65	.5
127	69	Epilepsy	18	1.52		16	1.35				1.38	.1
129-133	73	Neuralgia and neuritis	45	3.80		4	.34				1.51	.1
138-141	75a	Conjunctivitis	69	5.83							1.18	.1
142	75b	Trachoma	2	.17							.08	.0
166	77	Pericarditis									.02	.0
167	78	Acute endocarditis	2	.17		1	.08				.02	.0
169-174	79	Organic heart disease	16	1.35		8	.67				1.24	.1
175	80	Angina pectoris	1	.08							.00	.0
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	2	.17	1	1	.08	1	1	.08	.19	.0
181	83b	Hemorrhoids	65	5.49							1.93	.1
183	83d	Varicose veins	7	.59							.56	.0
184	83e	Varicocele	46	3.89							2.10	.1
185-187	84	Diseases of the lymphatic system	119	10.05							5.10	.4
193-199	86	Diseases of the nasal fossæ	93	7.86							1.36	.1
200-202	87	Diseases of the larynx	17	1.44							.38	.0
203-204	88	Diseases of the thyroid body	2	.17							.21	.0
205-206	89-90	Bronchitis	417	35.24		1	.08				9.24	.7
207	91	Broncho-pneumonia	2	.17							.30	.0
208	92	Pneumonia	26	2.20							1.98	.1
209-215	93	Pleurisy	44	3.72							2.12	.1
219	96	Asthma	11	.93		4	.34				.49	.0

[1] Number of discharges and deaths which actually occurred.

tios per 1,000 of mean strength, for Philippine Islands, American troops, enlisted men, ear 1915.

Philippine Islands, white American, enlisted men.										Philippine Islands, colored American, enlisted men.									
S. G. O., 10,493—A. G. O., 10,548.										S. G. O., 1,341—A. G. O., 1,341.									
dmissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
...	...	...	...	...	...	...	...	...	...	1	0.75	...	...	...	...	...	...	0.09	0.07
718	68.43	...	...	...	...	...	...	12.88	1.23	29	21.63	...	...	...	...	...	...	.59	.44
130	12.39	...	...	...	...	...	...	2.76	.26	1	.75	...	...	...	...	...	...	.04	.03
3	.29	...	...	...	...	...	...	.16	02	...	...	...	...	...	...	...	...	...	...
4	.38	...	...	...	...	...	...	.06	.01	...	...	...	...	...	...	...	...	...	...
564	53.75	...	...	...	...	...	...	9.55	.91	28	20.88	...	...	...	...	...	...	.55	.41
17	1.62	...	...	...	...	...	...	.35	.03	...	...	...	...	...	...	...	...	.00	.00
...	...	...	...	...	...	...	...	.07	.01	...	...	...	...	...	...	...	...	...	...
23	2.19	...	...	...	...	...	...	1.82	.17	...	...	...	...	...	...	...	...	...	...
1	.10	...	...	...	1	1	0.09	.02	.00	...	...	...	...	...	...	...	...	...	...
28	2.67	...	...	...	...	...	...	.58	.06	10	7.46	...	...	...	...	...	...	.16	.12
61	5.81	...	1	0.09	2	2	.19	3.41	.32	2	1.49	...	...	...	...	...	...	.22	.17
2	.19	...	...	...	...	...	...	.13	.01	...	...	...	...	...	...	...	...	...	...
56	5.34	...	1	.09	2	2	.19	3.18	.30	2	1.49	...	...	...	...	...	...	.22	.17
3	.29	...	...	...	...	...	...	.10	.01	...	...	...	...	...	...	...	...	...	...
1	.10	...	...	...	...	...	...	.01	.00	...	...	...	...	...	...	...	...	...	...
,156	110.17	...	...	...	...	...	...	17.64	1.68	398	296.80	...	...	...	...	...	...	5.35	3.99
130	12.39	...	...	...	...	...	...	8.05	.77	24	17.90	...	...	...	...	...	...	1.80	1.34
3	.29	...	...	...	3	3	.28	.05	.01	...	...	...	...	...	...	...	...	...	...
62	5.91	...	36	3.41	...	2	.19	4.88	.47	14	10.44	...	3	2.24	...	4	2.98	1.05	.79
61	5.81	...	35	3.32	...	2	.19	4.65	.44	13	9.69	...	3	2.24	...	4	2.98	.96	.72
1	.10	...	1	.09	...	...	...	.23	.02	1	.75	...	...	...	...	...	...	.09	.07
,858	177.08	...	9	.85	...	...	...	82.27	7.84	347	258.76	...	2	1.49	1	1	.75	13.61	10.15
398	37.93	...	5	.47	...	...	...	18.48	1.76	84	62.64	...	1	.75	1	1	.75	3.93	2.93
407	38.79	...	...	...	...	...	...	12.13	1.16	43	32.06	...	...	...	...	...	...	1.70	1.27
,053	100.35	...	4	.38	...	...	...	51.66	4.92	220	164.05	...	1	.75	...	...	...	7.99	5.96
1	.10	...	...	...	...	...	...	.14	.01	1	.75	...	...	...	...	...	...	.25	.19
11	1.05	...	...	...	...	...	...	.59	.06	...	...	...	...	...	...	...	...	...	...
38	3.62	...	1	.09	...	...	...	2.85	.27	1	.75	...	...	...	...	...	...	.09	.07
29	2.76	...	1	.09	...	...	...	1.69	.16	1	.75	...	...	...	...	...	...	.09	.07
9	.86	...	...	...	...	...	...	1.16	.11	...	...	...	...	...	...	...	...	...	...
4	.38	...	1	.09	...	...	...	.33	.03	...	...	...	...	...	...	...	...	...	...
197	18.77	...	6	.57	...	...	...	2.31	.22	17	12.68	...	...	...	...	...	...	.19	.14
4	.38	...	5	.47	...	...	...	.24	.02	1	.75	...	1	.75	...	...	...	.02	.02
3	.29	...	1	.09	...	...	...	.21	.02	...	...	...	...	...	...	...	...	...	...
3	.29	...	1	.09	1	1	.09	.15	.01	...	...	...	...	...	...	...	...	...	...
1	.10	...	...	...	...	...	...	.06	.01	...	...	...	...	...	...	...	...	...	...
77	7.34	...	86	8.15	...	...	...	6.05	.58	9	6.71	...	9	6.71	...	...	...	.60	.45
17	1.62	...	15	1.42	...	...	...	1.32	.13	1	.75	...	1	1.75	...	...	...	.07	.05
42	4.00	...	4	.38	...	...	...	1.42	.13	3	2.24	...	...	...	...	...	...	.10	.07
62	5.91	...	...	...	...	...	...	1.11	.11	7	5.22	...	...	...	...	...	...	.07	.05
1	.10	...	...	...	...	...	...	.01	.00	1	.75	...	...	...	...	...	...	.06	.05
...	...	...	...	...	...	...	...	.02	.00	...	...	...	...	...	...	...	...	...	...
2	.19	...	1	.09	...	...	...	.02	.00	...	...	...	...	...	...	...	...	...	...
14	1.33	...	8	.75	...	...	...	1.04	.10	2	1.49	...	...	...	...	...	...	.19	.15
1	.10	...	...	...	...	...	...	.00	.00	...	...	...	...	...	...	...	...	...	...
1	.10	1	1	.09	...	...	...	.18	.02	1	.75	...	...	...	1	1	.75	.01	.00
55	5.24	...	...	...	...	...	...	1.63	.16	10	7.46	...	...	...	...	...	...	.30	.22
7	.67	...	...	...	...	...	...	.56	.05	...	...	...	...	...	...	...	...	...	...
41	3.91	...	...	...	...	...	...	1.85	.18	5	3.73	...	...	...	...	...	...	.25	.18
99	9.43	...	...	...	...	...	...	4.22	.40	20	14.91	...	...	...	...	...	...	.87	.65
75	7.15	...	...	...	...	...	...	1.08	.10	18	13.42	...	...	...	...	...	...	.28	.21
15	1.43	...	...	...	...	...	...	.34	.03	2	1.49	...	...	...	...	...	...	.03	.02
2	.19	...	...	...	...	...	...	.21	.02	...	...	...	...	...	...	...	...	...	...
351	33.45	...	1	.09	...	...	...	8.03	.77	66	49.22	...	...	...	...	...	...	1.21	.90
2	.19	...	...	...	...	...	...	.30	.03	...	...	...	...	...	...	...	...	...	...
19	1.81	...	...	...	...	...	...	1.37	.13	7	5.22	...	...	...	...	...	...	.60	.45
42	4.00	...	...	...	...	...	...	2.04	.19	2	1.49	...	...	...	...	...	...	.08	.06
10	.95	...	3	.28	...	...	...	.46	.04	1	.75	...	1	.75	...	...	...	.03	.02

Number of discharges and deaths, including those of cases invalided home and deducted from the ited States.

TABLE No. 72.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
white and colored

Serial Nos.	International classification.	Causes of admission to sick report.	Philippine Islands, total American, enlisted men, white and colored.									
		Mean strength	S. G. O., 11,834—A. G. O., 11,889.									
			Admissions.		Discharges.			Deaths.			Noneffective.	
					Number.			Number.				
			Number.	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.	Ratio.
221	98a	Hæmoptysis	2	.17							.03	.0
224–227	99a	Diseases of the teeth and gums	56	4.73							1.21	.1
228–231	99b	Other diseases of the mouth and annexa	15	1.27							.36	.
232–236	100	Diseases of the pharynx	672	56.78							9.58	.8
238	102	Ulcer of stomach	2	.17		2	.17				.28	.0
239–244	103	Other diseases of stomach (cancer excepted)	134	11.32		1	.08	1	1	.08	2.69	.2
245–253	105	Diarrhea and enteritis	449	37.94							6.02	.5
254	106	Ankylostomiasis	17	1.44							.63	.0
255–259	107	Intestinal parasites	13	1.10							.27	.0
260	108	Appendicitis	140	11.83		1	.08				11.28	.9
261–263	109	Hernia	30	2.53		2	.17				3.15	.2
264–267	110a	Diseases of the anus and fecal fistula	7	.59							.34	.0
268–272	110b	Other diseases of the intestines	752	63.54		2	.17				9.38	.7
276	114	Biliary calculi	2	.17							.26	.0
277–281	115	Other diseases of liver and gall bladder	77	6.51							3.36	.3
288	119	Acute nephritis	8	.68				1	1	.08	.26	.0
289–291	120	Bright's disease	9	.76		1	.08	1	1	.08	.64	.0
293–299	122	Other diseases of the kidney and annexa	4	.34							.53	.
303–306	124	Diseases of the bladder	32	2.70		4	.34				1.85	.1
304	124b	Enuresis	14	1.18		4	.34				.89	.
307–309	125	Diseases of the urethra, urinary abscess, etc	29	2.45							.45	.
310–312	126	Diseases of the prostate	5	.42		1	.08				.25	.
313–319	127	Diseases of the male genital organs (nonvenereal)	40	3.38							1.17	.
322–323	143	Furuncle and carbuncle	187	15.81							3.23	.
324–325	144	Acute abscess and cellulitis	254	21.46							6.18	.
352–357	146	Diseases of the bones	66	5.58		1	.08				1.89	.
358–360	147	Diseases of the joints	49	4.14		2	.17				4.37	.
367	147g	Flat foot	64	5.41		27	2.27				3.92	.
372	150	Congenital malformations	65	5.49							2.47	.
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	51	4.31							.94	.
379	189Ba	Under observation, undiagnosed and unknown	8	.68							.50	.
380	189Bb	Malingering	7	.59							.16	.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426–434	155–163	Suicides, all	1	.08				6	6	.51		
435	164	Poisoning by food	136	11.49								
436	165a	Venomous bites and stings	12	1.01								
437	165b	Other poisoning (deleterious gases excepted)	12	1.01								
439	167	Burns (conflagrations excepted)	43	3.63				1	1	.08		
442	169	Drowning, accidental						3	3	.25		
443	170	Traumatism by firearms (other than specified)	15	1.27		1	.08					
445	171	Traumatism by cutting or piercing instruments	122	10.31		1	.08					
446	172	Traumatism by fall	330	27.88		3	.25	1	1	.08		
448	174	Traumatism by machines	3	.25								
449	175	Traumatism by other crushing	101	8.53		2	.17	3	3	.25		
450	176	Injuries by animals	60	5.07								

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from United States.

ios per 1,000 of mean strength, for Philippine Islands, American troops, enlisted men,
r 1915—Continued.

hilippine Islands, white American, enlisted men.										Philippine Islands, colored American, enlisted men.									
S. G. O., 10,493—A. G. O., 10,548.										S. G. O., 1,341—A. G. O., 1,341.									
missions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Non-effective.	
[illegible]	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
2	.19							.03	.00										
52	4.96							1.16	.11	4	2.98							.05	.04
12	1.14							.30	.03	3	2.24							.07	.05
604	57.56							8.62	.82	68	50.71							.95	.71
2	.19		2	.19				.28	.03										
118	11.25		1	.09	1	1	.09	2.22	.21	16	11.93							.47	.35
411	39.17							5.68	.54	38	28.34							.34	.25
17	1.62							.63	.06										
12	1.14							.27	.03	1	.75							.02	.02
113	10.77		1	.09				9.06	.86	27	20.13							2.22	1.66
25	2.38		2	.19				2.48	.24	5	3.73							.67	.50
6	.57							.27	.03	1	.75							.07	.05
589	56.13		1	.09				7.77	.74	163	121.55		1	.75				1.61	1.20
2	.19							.26	.02										
73	6.96							3.04	.29	4	2.98							.32	.24
7	.67							.25	.02	1	.75				1	1	.75	.01	.01
9	.86		1	.09	1	1	.09	.64	.06										
3	.29							.47	.05	1	.75							.05	.04
30	2.86		4	.38				1.82	.17	2	1.49							.04	.03
14	1.33		4	.38				.89	.09										
25	2.38							.38	.04	4	2.98							.07	.05
4	.38		1	.09				.25	.02	1	.75							.00	.00
35	3.34							1.02	.10	5	3.73							.16	.12
62	15.44							2.78	.26	25	18.64							.44	.33
22	21.15							5.18	.50	32	23.86							.99	.74
50	4.77		1	.09				1.44	.14	16	11.93							.45	.34
46	4.38							3.85	.37	3	2.24		2	1.49				.52	.39
48	4.57		22	2.09				2.74	.26	16	11.93		5	3.73				1.18	.88
47	4.48							1.49	.14	18	13.42							.97	.73
49	4.67							.85	.08	2	1.49							.09	.07
6	.57							.41	.04	2	1.49							.08	.06
[illegible]	.29							.09	.01	4	2.98							.07	.05
1	.10				6	6	.57												
35	12.87									1	.75								
11	1.05									1	.75								
12	1.14																		
41	3.91				1	1	.09			2	1.49								
					3	3	.28												
[illegible]	1.33		1	.09						1	.75								
00	9.53		1	.09						22	16.40								
77	26.40		3	.28	1	1	.09			53	39.52								
3	.29																		
00	9.53		2	.19	2	2	.19			1	.75				1	1	.75		
58	5.53									2	1.49								

[4] Noneffectiveness for individual external cases not tabulated.

TABLE No. 72.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
white and colore

			Philippine Islands, total American, enlisted men white and colored.									
		Mean strength	S. G. O., 11,834—A. G O., 11,889.									
			Admissions.		Discharges.			Deaths.			Noneffectiv	
Serial Nos.	International classification.	Causes of admission to sick report.	Number.	Ratio.	Number (1)	Number (2)	Ratio.	Number (1)	Number (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.										
453	179	Effects of heat	40	3.38	.....	...	.....	...	...	....	....	....
456–458	182–4	Homicides, all	1	.08	.....	...	.....	2	2	.17	....	....
460	186	Other external violence	511	43.18	.....	1	.08	...	...	....	....	....
		DISEASES AND INJURIES GROUPED.										
		General diseases	5,167	436.62	.....	67	5.64	7	13	1.09	162.34	13.
	1–19	Epidemic diseases	2,604	220.04	.....	1	.08	3	3	.25	53.05	4.
	20–59	Other general diseases	2,563	216.58	.....	66	5.55	4	10	.84	109.29	9.
		Diseases of the nervous system and organs of special sense	557	47.06	.....	130	10.93	1	1	.08	20.18	1.
	60–74	Of the nervous system	210	17.74	.....	125	10.51	1	1	.08	12.55	1.
	75	Of the eye and its annexa	180	15.21	.....	1	.08	...	...	....	3.55	
	76	Of the ear and its annexa	167	14.11	.....	4	.34	...	...	....	4.07	
	77–85	Diseases of the circulatory system	271	22.90	1	11	.93	1	1	.08	11.50	
	86–98	Diseases of the respiratory system	615	51.97	.....	6	.50	...	...	....	16.17	1.
	99–118	Diseases of the digestive system	2,367	200.02	.....	8	.67	1	1	.08	48.87	4.
	119–127	Diseases of the genito-urinary system	131	11.07	.....	6	.50	2	2	.17	5.29	
	142–145	Diseases of the skin and cellular tissue	744	62.87	.....	...	.....	...	...	....	18.30	1.
	146–149	Diseases of the organs of locomotion	320	27.04	.....	34	2.86	...	...	....	14.08	1.
	150	Malformations, etc	65	5.49	.....	...	.....	...	...	....	2.47	
	189	Ill-defined diseases	71	6.00	.....	...	.....	...	...	....	1.63	
		Total for disease	10,308	871.05	1	262	22.04	12	18	1.51	300.82	25.
	155–186	External causes	1,413	119.40	.....	14	1.18	16	16	1.35	44.13	3.
		Total for disease and external causes	11,721	990.45	1	276	23.22	28	34	2.86	344.96	29.

[1] Number of discharges and deaths which actually occurred.

ns per 1,000 of mean strength, for Philippine Islands. American troops, enlisted men. 1915—Continued.

lippine Islands, white American, enlisted men.										Philippine Islands, colored American, enlisted men.									
S. G. O., 10,493—A. G. O., 10,548.										S. G. O., 1,341—A. G. O., 1,341.									
issions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Non-effective.	
	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
39	3.72	.....	...	.....	...	...	....	....	.....	1	.75	.....	...	.....	...	...	....	......	.....
1	.10	.....	...	.....	2	2	.18	....	.....	......	....	.....	...	.....	...	...	....	......	.....
45	42.41	.....	1	.09	...	...	....	....	.....	66	49.22	.....	...	.....	...	...	....	......	.....
18	411.51	.....	61	5.78	6	8	.76	138.86	13.24	849	633.11	.....	6	4.47	1	5	3.73	23.48	17.51
36	203.56	.....	1	.09	3	3	.28	44.80	4.27	468	348.99	.....	...	.....	...	...	....	8.25	6.15
82	207.95	.....	60	5.69	3	5	.47	94.06	8.96	381	284.11	.....	6	4.47	1	5	3.73	15.22	11.35
13	48.89	.....	120	11.37	1	1	.09	18.74	1.79	44	32.80	.....	10	7.46	...	...	....	1.44	1.08
95	18.58	.....	115	10.90	1	1	.09	11.70	1.11	15	11.18	.....	10	7.46	...	...	....	.85	.64
64	15.63	.....	1	.09	...	...	....	3.21	.31	16	11.93	.....	...	.....	...	...	....	.35	.26
54	14.68	.....	4	.38	...	...	....	3.83	.37	13	9.69	.....	...	.....	...	...	....	.24	.18
30	21.92	1	11	1.04	...	...	....	9.85	.94	41	30.57	.....	...	.....	1	1	.75	1.64	1.23
19	49.46	.....	5	.47	...	...	....	13.93	1.32	96	71.59	.....	1	.75	...	...	....	2.24	1.67
37	194.12	.....	7	.66	1	1	.09	42.06	4.01	330	246.09	.....	1	.75	...	...	....	6.80	5.07
17	11.15	.....	6	.57	1	1	.09	4.97	.47	14	10.44	.....	...	.....	1	1	.75	.32	.24
51	62.04	.....	...	.....	...	...	....	15.96	1.52	93	69.35	.....	...	.....	...	...	....	2.34	1.75
59	24.68	.....	27	2.56	...	...	....	11.01	1.05	61	45.49	.....	7	5.22	...	...	....	3.07	2.29
17	4.48	.....	...	.....	...	...	....	1.49	.14	18	13.42	.....	...	.....	...	...	....	.97	.73
63	6.00	.....	...	.....	...	...	....	1.39	.13	8	5.97	.....	...	.....	...	...	....	.24	.18
54	834.27		1 237	22.47	9	11	1.04	258.28	24.62	1,554	1.158.84	.....	25	18.64	3	7	5.22	42.54	31.73
60	120.08	.....	14	1.33	15	15	1.42	37.64	3.59	153	114.09	.....	...	.....	1	1	.75	6.50	4.85
14	954.35		1 251	23.79	24	26	2.46	295.92	28.20	1,707	1.272.93	.....	25	18.64	4	8	5.97	49.04	36.57

umber of discharges and deaths, including those of cases invalided home and deducted from the ed States.

TABLE No. 73.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
Canal Zone, an

Serial Nos.	International classification.	Mean strength	Alaska, officers and enlisted men.									
			787									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
7-11	4	Malaria	1	1.27							0.01	0.0
7		Estivo-autumnal fever	1	1.27							.01	.0
9		Quartan malarial fever										
10		Tertian malarial fever										
11		Undetermined malarial fever										
13	5b	Vaccinia										
14	6	Measles										
18	10	Influenza	7	8.89							.10	.1
21-23	14	Dysentery	1	1.27							.01	.0
21		Bacillary										
22		Entamœbic	1	1.27							.01	.0
27	18	Erysipelas										
29	19b	Dengue										
31	19d	German measles										
34	19g	Mumps										
49-57	28-34	Tuberculosis, all	1	1.27							.12	.1
49-51	28	Tuberculosis of lungs	1	1.27							.12	.1
52	29	Miliary tuberculosis, acute										
53-57	30-34	Tuberculosis of other organs										
59-74	37-38	Venereal diseases, all	27	34.31							.41	.5
59-64	37	Syphilis	3	3.81							.12	.1
65-67	38a	Soft chancre	6	7.62							.02	.0
68-74	38b	Gonococcus infection	18	22.87							.27	.3
75-79	39-45	Cancer and other malignant tumors	1	1.27							.01	.0
80	46	Benign tumors	1	1.27							.02	.0
81-85	47-48	Rheumatism, articular, all	4	5.08							.04	.0
81-82	47	Acute articular rheumatism	3	3.81							.04	.0
83-85	48	Chronic articular rheumatism	1	1.27							.01	.0
87-88	50	Diabetes										
89	51	Exophthalmic goitre	1	1.27								
97-100	56	Alcoholism and results	8	10.17		1	1.31				.06	.0
103-104	59	Chronic poisoning, including drug habit	1	1.27							.01	.0
107	61	Simple meningitis										
108	61a	Epidemic cerebrospinal meningitis										
110-115	63	Other diseases of spinal cord										
117-119	66	Paralysis without specified cause										
120-126	67-68	Mental alienation	8	10.17		3	3.93		1	1.27	.23	.
127	69	Epilepsy										
129-133	73	Neuralgia and neuritis	5	6.35		1	1.31				.16	.
138-141	75a	Conjunctivitis										
142	75b	Trachoma										
166	77	Pericarditis										
167	78	Acute endocarditis										
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc										
178-179	82	Embolism and thrombosis										
181	83b	Hemorrhoids										
183	83d	Varicose veins										
184	83e	Variocele										
185-187	84	Diseases of the lymphatic system										
193-199	86	Diseases of the nasal fossæ	5	6.35							.09	.
200-202	87	Diseases of the larynx	6	7.62							.06	.
203-204	88	Diseases of the thyroid body										
205-206	89-90	Bronchitis	24	30.49							.29	.
207	91	Broncho-pneumonia	1	1.27							.06	.
208	92	Pneumonia	1	1.27							.11	.
209-215	93	Pleurisy	4	5.08							.22	.
219	96	Asthma	2	2.54							.04	.

[1] Number of discharges and deaths which actually occurred.

os per 1,000 of mean strength, for American troops serving in Alaska, Panama
ina, year 1915.

Panama Canal Zone, officers and enlisted men.										China, officers and enlisted men.									
S. G. O., 5,903—A. G. O., 6,108.										1,378									
missions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
05	85.55							13.39	2.27	32	23.22							0.58	0.42
79	47.26							8.06	1.37	1	.73							.06	.04
								.02	.00										
86	31.51							4.22	.71	28	20.32							.49	.36
40	6.78							1.09	.19	3	2.18							.04	.03
2	.34							.02	.00										
5	.85							.23	.04	1	.73							.07	.05
76	46.76							4.50	.76	40	29.03							.52	.38
6	1.02							.45	.08	2	1.45							.39	.28
1	.17							.05	.01										
5	.85							.40	.07	2	1.45							.39	.28
1	.17							.02	.00										
21	3.56							.54	.09										
2	.34							.06	.01	1	.73							.05	.03
43	7.28							1.24	.21	7	5.08							.55	.40
35	5.93		10	1.69		2	0.33	2.05	.35	7	5.08		2	1.50	1	2	1.45	.97	.70
29	4.91		8	1.35		1	.16	1.20	.20	3	2.18		2	1.50		1	.73	.59	.43
1	.17					1	.16	.19	.03	1	.73				1	1	.73	.05	.03
5	.85		2	.34				.66	.11	3	2.18							.34	.24
82	132.48	1	4	.68				29.78	5.05	673	488.39		1	.75				18.70	13.57
91	15.42	1	1	.17				5.02	.85	68	49.35		1	.75				3.50	2.54
00	50.82							11.48	1.95	286	207.55							6.40	4.65
91	66.24		3	.51				13.28	2.25	319	231.49							8.79	6.38
2	.34							.15	.03										
10	1.69							.10	.02	2	1.45							.12	.09
26	4.41							1.21	.21	15	10.88							.32	.23
25	4.24							1.12	.19	13	9.43							.25	.18
1	.17							.09	.02	2	1.45							.07	.05
			1	.17				.12	.02										
2	.34							.24	.04	1	.73		1	.75				.25	.18
90	15.25							1.17	.20	45	32.65							.51	.37
5	.85							.07	.01	2	1.45		1	.75				.21	.15
					1	1	.16												
1	.17							.13	.02										
										1	.73							.32	.23
4	.68							.23	.04	1	.73							.08	.06
23	3.90	9	17	2.88				4.46	.76	4	2.90		2	1.50				.55	.40
7	1.19		4	.68				.38	.06	5	3.63		1	.75				.14	.11
30	5.08							.96	.16	7	5.08		1	.75				.48	.35
29	4.91							.58	.10	9	6.53							.15	.11
2	.34							.13	.02	1	.73		1	.75				.32	.23
1	.17				1	1	.16	.07	.01										
6	1.02		3	.51				1.10	.19										
										1	.73		1	.75				.01	.01
1	.17		1	.17				.38	.06										
48	8.13							1.44	.24	6	4.35							.11	.08
8	1.36							.31	.05	1	.73							.05	.04
16	2.71		1	.17				.93	.16	6	4.35							.30	.22
80	13.55		2	.34				6.05	1.02	40	29.03							1.60	1.16
87	14.74							1.57	.27	111	80.55							1.20	.87
9	1.52		1	.17				.47	.08	9	6.53							.11	.08
4	.68		3	.51				.73	.12										
75	29.65							3.76	.64	38	27.57							.73	.53
										1	.73							.14	.10
5	.85				1	1	.16	.38	.06	6	8.35				1	1	.73	.38	.27
19	3.22							.44	.08	6	4.35							.32	.23
4	.68							.10	.02										

umber of discharges and deaths, including those of cases invalided home and deducted from the
ed States.

TABLE No. 73.—*Admission to sick report, discharges, deaths, and noneffectiveness, with Canal Zone, and China,*

Serial Nos.	International classification.	Causes of admission to sick report.	Alaska, officers and enlisted men.									
		Mean strength	787									
			Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
221	98a	Hæmoptysis	1	1.27							.01	.01
222	98b	Hay fever										
224-227	99a	Diseases of the teeth and gums	4	5.08							.04	.05
228-231	99b	Other diseases of the mouth and annexa										
232-236	100	Diseases of the pharynx	35	44.47							.33	.41
238	102	Ulcer of stomach	1	1.27		1	1.31				.02	.03
239-244	103	Other diseases of stomach (cancer excepted)	4	5.08							.08	.11
245-253	105	Diarrhea and enteritis	6	7.62							.03	.04
254	106	Ankylostomiasis										
255-259	107	Intestinal parasites										
260	108	Appendicitis	5	6.35							.30	.39
261-263	109	Hernia	4	5.08							.22	.28
264-267	110a	Diseases of the anus and fecal fistula										
268-272	110b	Other diseases of the intestines	4	5.08							.05	.07
276	114	Biliary calculi										
277-281	115	Other diseases of liver and gall bladder	4	5.08							.09	.11
288	119	Acute nephritis										
289-291	120	Bright's disease										
293-299	122	Other diseases of the kidney and annexa										
303-306	124	Diseases of the bladder	1	1.27							.02	.03
304	124b	Enuresis										
307-309	125	Diseases of the urethra, urinary abscess, etc										
310-312	126	Diseases of the prostate										
313-319	127	Diseases of the male genital organs (nonvenereal)	2	2.54							.05	.07
322-323	143	Furuncle and carbuncle	3	3.81							.04	.05
324-325	144	Acute abscess and cellulitis	3	3.81							.07	.09
352-357	146	Diseases of the bones										
358-360	147	Diseases of the joints	3	3.81							.04	.05
367	149g	Flat foot	2	2.54		2	2.62				.36	.46
372	150	Congenital malformations	4	5.08							.15	.19
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	1	1.27							.01	.01
379	189Ba	Under observation, undiagnosed, and unknown										
380	189Bb	Malingering										
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426-434	155-163	Suicides, all						1	1	1.27		
435	164	Poisoning by food										
436	165a	Venomous bites and stings	2	2.54								
437	165b	Other poisoning (deleterious gases excepted)										
439	167	Burns (conflagrations excepted)	2	2.54								
442	169	Drowning, accidental										
443	170	Traumatism by firearms (other than specified)										
444	170a	Shot by sentry or guard										
445	171	Traumatism by cutting or piercing instruments	5	6.35								
446	172	Traumatism by fall	16	20.33								
448	174	Traumatism by machines	1	1.27								
449	175	Traumatism by other crushing										
450	176	Injuries by animals										

[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from th
United States.

ios per 1,000 of mean strength, for American troops serving in Alaska, Panama
r 1915—Continued.

Panama Canal Zone, officers and enlisted men.										China, officers and enlisted men.									
S. G. O., 5,903—A. G. O., 6,108.										1,378									
dmissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
umber.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	3	2.18	....	....	....	....	....	....	.04	.03
25	4.24	....	....	....	....	....	....	.38	.06	21	15.24	....	....	....	....	....	....	.27	.19
6	1.02	....	....	....	....	....	....	.25	.04	3	2.18	....	....	....	....	....	....	.05	.04
247	41.84	....	....	....	....	....	....	4.49	.76	183	132.80	....	....	....	....	....	....	2.31	1.67
1	.17	....	....	....	....	....	....	.02	.00	....	....	....	....	....	....	....	....	....	....
29	4.91	....	....	....	....	....	....	.29	.05	31	22.50	....	....	....	....	....	....	.59	.43
98	16.60	....	....	....	....	....	....	1.33	.23	67	48.62	....	....	....	....	....	....	.66	.48
1	.17	....	....	....	....	....	....	.03	.01	1	.73	....	....	....	....	....	....	.15	.11
2	.34	....	....	....	....	....	....	.06	.01	8	5.81	....	....	....	....	....	....	.17	.12
94	15.92	....	2	.34	1	1	.16	6.28	1.06	14	10.16	....	....	....	....	....	....	.43	.31
33	5.59	....	....	....	....	....	....	2.66	.45	9	6.53	....	....	....	....	....	....	.68	.50
3	.51	....	....	....	....	....	....	.17	.03	1	.73	....	....	....	....	....	....	.09	.06
264	44.72	....	1	.17	....	....	....	3.09	.52	147	106.68	....	....	....	....	....	....	1.56	1.13
1	.17	....	....	....	....	....	....	.01	.00	....	....	....	....	....	....	....	....	....	....
24	4.07	....	....	....	....	....	....	1.09	.18	11	7.98	....	....	....	....	....	....	.47	.34
1	.17	....	....	....	1	1	.16	.08	.01	....	....	....	....	....	....	....	....	....	....
4	.68	....	....	....	....	....	....	.29	.05	2	1.45	....	....	....	....	....	....	.12	.08
1	.17	....	....	....	....	....	....	.12	.02	....	....	....	....	....	....	....	....	....	....
8	1.36	....	....	....	....	....	....	.17	.03	3	2.18	....	....	....	....	....	....	.17	.12
1	.17	....	....	....	....	....	....	.02	.00	3	2.18	....	....	....	....	....	....	.17	.12
5	.85	....	....	....	....	....	....	.12	.02	8	5.81	....	....	....	....	....	....	.15	.11
1	.17	....	....	....	....	....	....	.04	.01	....	....	....	....	....	....	....	....	....	....
22	3.73	....	....	....	....	....	....	.72	.12	5	3.63	....	....	....	....	....	....	.13	.10
161	27.28	....	....	....	....	....	....	2.52	.43	24	17.42	....	....	....	....	....	....	.51	.37
51	8.64	....	....	....	....	....	....	1.70	.29	30	21.77	....	....	....	....	....	....	.68	.50
10	1.69	....	....	....	....	....	....	.77	.13	....	....	....	....	....	....	....	....	....	....
26	4.40	....	1	.17	....	....	....	1.45	.25	20	14.51	....	....	....	....	....	....	.67	.49
31	5.25	....	12	2.03	....	....	....	2.44	.41	6	4.35	....	....	....	....	....	....	.17	.12
34	5.76	....	....	....	....	....	....	.73	.12	7	5.08	....	....	....	....	....	....	.20	.14
2	.34	....	....	....	....	....	....	.05	.01	12	8.71	....	....	....	....	....	....	.29	.21
8	1.36	....	....	....	....	....	....	.08	.01	1	.73	....	....	....	....	....	....	.02	.01
4	.68	....	....	....	....	....	....	.07	.01	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	2	2	.33	....	....	....	....	....	....	....	1	1	.73	....	....
5	.85	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
27	4.57	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3	.51	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
28	4.74	....	....	....	....	....	....	....	....	2	1.45	....	....	....	....	....	....	....	....
....	....	....	....	....	3	3	.49	....	....	....	....	....	....	....	1	1	.73	....	....
16	2.71	....	....	....	....	....	....	....	....	3	2.18	....	....	....	....	....	....	....	....
1	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
92	32.53	....	....	....	....	....	....	....	....	11	7.98	....	....	....	....	....	....	....	....
00	33.88	....	....	....	....	....	....	....	....	44	31.93	....	....	....	....	....	....	....	....
2	.34	....	....	....	....	....	....	....	....	1	.73	....	....	....	....	....	....	....	....
38	6.44	....	3	.51	....	....	....	....	....	1	.73	....	1	.75	....	....	....	....	....
29	4.91	....	....	....	....	....	....	....	....	4	2.90	....	....	....	....	....	....	....	....

[a] Noneffectiveness for individual external causes not tabulated.

Table No. 73.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
Canal Zone, and Chin

Serial Nos.	International classification.		Alaska, officers and enlisted men.									
		Mean strength	787									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.										
452	178	Effects of excessive cold	3	3.81	...	...	...	...	...	...	...	
453	179	Effects of heat	...	...	...	...	...	...	...	...	...	
455	181	Effects of electricity	...	...	...	...	...	...	...	...	...	
56–458	182–4	Homicides, all	...	...	...	...	...	...	...	...	...	
460	186	Other external violence	36	45.75	...	...	...	...	...	...	...	
		DISEASES AND INJURIES GROUPED										
		General diseases	53	67.34	...	1	1.31	...	...	...	0.80	
	1–19	Epidemic diseases	9	11.44	...	...	...	...	...	...	.13	
	20–59	Other general diseases	44	55.91	...	1	1.31	...	...	...	.67	
		Diseases of the nervous system and organs of special sense	22	27.95	1	6	7.86	...	1	1.27	.59	
	60–74	Of the nervous system	18	22.87	1	6	7.86	...	1	1.27	.54	
	75	Of the eye and its annexa	2	2.54	...	...	...	...	...	...	.03	
	76	Of the ear and its annexa	2	2.54	...	...	...	...	...	...	.02	
	77–85	Diseases of the circulatory system	1	1.27	...	...	...	...	...	...	.01	
	86–98	Diseases of the respiratory system	44	55.91	...	...	...	...	...	...	88	
	99–118	Diseases of the digestive system	67	85.13	...	1	1.31	...	...	...	1.16	
	119–127	Diseases of the genito-urinary system	3	3.81	...	...	...	...	...	...	.07	
	142–145	Diseases of the skin and cellular tissue	11	13.98	...	...	...	...	...	...	.18	
	146–149	Diseases of the organs of locomotion	23	29.23	...	2	2.62	...	...	...	.86	
	150	Malformations, etc	4	5.08	...	...	...	...	...	...	.15	
	189	Ill-defined diseases	2	2.54	...	...	...	...	...	...	.02	
		Total for disease	230	292.24	1	9	11.80	...	1	1.27	4.73	
	155–186	External causes	68	86.40	...	...	...	1	1	1.27	2.12	
		Total for disease and external causes	298	378.65	1	9	11.80	1	2	2.54	6.86	

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[1] Number of discharges and deaths which actually occurred.

ios per 1,000 of mean strength, for American troops serving in Alaska, Panama r 1915—Continued.

Panama Canal Zone, officers and enlisted men.										China, officers and enlisted men.								
S. G. O., 5,903—A. G. O., 6,108.										1,378								
missions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
										1	0.73								
18	3.05									1	.73								
					1	1	0.16												
					1	1	.16												
314	53.19		2	.34						81	58.78								
317	307.81	1	15	2.54		2	.33	55.65	9.43	833	604.50		5	3.75	1	2	1.45	23.49	17.05
363	146.20							20.47	3.47	87	63.13							2.32	1.68
54	161.61	1	15	2.54		2	.33	35.18	5.96	746	541.36		5	3.75	1	2	1.45	21.17	15.36
265	44.89	10	26	4.40	1	1	.16	11.16	1.89	57	41.36		5	3.75				2.63	1.91
97	16.43	9	22	3.72	1	1	.16	7.45	1.26	30	21.77		4	3.00				1.79	1.30
92	15.59		2	34				2.18	.37	15	10.88		1	.75				.54	.39
76	12.87	1	2	.34				1.53	.26	12	8.71							.30	.22
165	27.95		7	1.18	1	1	.16	10.59	1.79	56	40.64		1	.75				2.18	1.58
304	51.50		4	.68	2	2	.33	7.52	1.27	174	126.27				1	1	.73	2.92	2.12
332	140.95		5	.85	1	1	.16	20.56	3.48	496	359.94				1	1	.73	7.43	5.39
48	8.13				1	1	.16	1.88	.32	18	13.06							.57	.42
67	96.05							13.24	2.24	97	70.39		1	.75				2.16	1.57
44	24.39		14	2.37				6.29	1.07	77	55.87							1.79	1.30
34	5.76							.73	.12	7	5.08							.19	.14
14	2.37							.21	.04	16	11.61							.42	.31
90	709.81	11	71	12.01	6	8	1.31	127.84	21.66	1,831	1,328.74		12	8.99	3	4	2.90	43.79	31.78
82	149.41		6	1.02	7	7	1.15	23.44	3.97	151	109.58		1	.75	2	2	1.45	3.68	2.67
72	859.22	11	77	13.03	13	15	2.46	151.28	25.63	1,982	1,438.32		13	9.74	5	6	4.35	47.47	34.45

Iumber of discharges and deaths, including those of cases invalided home and deducted from the ed States.

TABLE NO. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1915.*

Serial No.	International classification.		Hawaii, officers and enlisted men.										Hawaii, enlisted men.									
		Mean strength	S. G. O., 8,876—A. G. O., 9,215.										S. G. O., 8,572—A. G. O., 8,884.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
1	1	Typhoid fever	4	0.45							0.63	0.07	4	0.47							0.63	0.07
2	1a	Paratyphoid fever	1	.11							.24	.03	1	.12							.24	.03
7-11	4	Malaria	15	1.69							.46	.05	15	1.75							.46	.05
7		Estivo-autumnal fever																				
10		Tertian malarial fever	14	1.58							.45	.05	14	1.63							.45	.05
11		Undetermined malarial fever	1	.11							.01	.00	1	.12							.01	.00
13	5b	Vaccinia	4	.45							.02	.00	4	.47							.02	.00
14	6	Measles	22	2.48				2	2	0.22	1.70	.19	22	2.57				2	2	0.23	1.70	.20
15	7	Scarlet fever	2	.23							.13.	.01	2	.23							.13	.01
17	9	Diphtheria	4	.45							.13	.01	4	.47							.13	.02
18	10	Influenza	171	19.27							3.34	.38	157	18.31							3.17	.37
21-23	14	Dysentery	20	2.25							2.13	.24	17	1.98							2.08	.24
21		Bacillary	5	.56							.22	.03	4	.47							.20	.02
22		Entamoebic	13	1.46							1.52	.17	11	1.28							1.50	.17
23		Unclassified	2	.23							.38	.04	2	.23							.38	.04
27	18	Erysipelas	3	.34							.14	.02	2	.23							.08	.01
31	19d	German measles	26	2.93							1.75	.20	26	3.03							1.75	.20
34	19g	Mumps	139	15.66							8.03	.90	139	16.22							8.03	.94
42-46	25	Mycoses	1	.11							.02	.00	1	.12							.02	.00
49-57	28-34	Tuberculosis, all	31	3.49		11	1.24		3	.33	2.39	.27	31	3.62		11	1.24		3	.34	2.39	.28
49-51	28	Tuberculosis of lungs	28	3.15		9	1.01		2	.22	1.93	.22	28	3.27		9	1.01		2	.23	1.93	.23
52	29	Miliary tuberculosis, acute	1	.11					1	.11	.10	.01	1	.12					1	.11	.10	.01
53-57	30-34	Tuberculosis of other organs	2	.23		2	.22				.35	.04	2	.23		2	.23				.35	.04
59-74	37-38	Venereal diseases, all	850	95.76		5	.56	1	1	.11	42.42	4.78	849	99.04		5	.56	1	1	.11	42.39	4.95

[illegible]	[illegible]	Gonococcus infection	517	58.24	....	1	.11	1	1	.11	24.56	2.77	517	60.31	....	1	.11	1	1	.11	24.56	2.87
80	46	Benign tumors	4	.45	....	....	....	....	....	....	.03	.00	4	.47	....	....	....	....	....	....	.03	.00
81-85	47-48	Rheumatism, articular, all	29	3.27	....	1	.11	....	....	....	1.99	.22	29	3.38	....	1	.11	....	....	....	1.99	.23
81-82	47	Acute articular rheumatism	21	2.37	....	....	....	....	....	....	1.33	.15	21	2.45	....	....	....	....	....	....	1.33	.15
83-85	48	Chronic articular rheumatism	8	.90	....	1	.11	....	....	....	.66	.07	8	.93	....	1	.11	....	....	....	.66	.08
89	51	Exophthalmic goitre	1	.11	....	....	....	....	....	....	.28	.03	1	.12	....	....	....	....	....	....	.28	.03
97-100	56	Alcoholism and results	100	11.27	....	4	.45	2	2	.22	1.55	.17	99	11.55	....	4	.45	2	2	.23	1.54	.18
103-104	59	Other chronic poisoning, including drug habit	6	.68	....	....	....	....	....	....	.12	.01	6	.70	....	....	....	....	....	....	.12	.01
108	61a	Epidemic cerebrospinal meningitis	1	.11	....	1	.11	1	1	.11	.55	.06	1	.12	....	1	.11	1	1	.11	.55	.06
110-115	63	Other diseases of spinal cord	1	.11	....	1	.11	....	....	....	.33	.04	1	.12	....	1	.11	....	....	....	.33	.04
116	64	Cerebral hemorrhage, apoplexy	1	.11	....	....	....	1	1	.11	.01	.00	1	.12	....	....	....	1	1	.11	.01	.00
117-119	66	Paralysis without specified cause	8	.90	....	....	....	....	....	....	.37	.04	6	.70	....	....	....	....	....	....	.25	.03
120-126	67-68	Mental alienation	39	4.39	....	32	3.60	....	1	.11	3.22	.36	39	4.55	....	32	3.60	....	1	.11	3.01	.35
127	69	Epilepsy	10	1.13	....	5	.56	....	....	....	.81	.09	10	1.17	....	5	.56	....	....	....	.81	.09
129-133	73	Neuralgia and neuritis	41	4.62	....	1	.11	....	....	....	1.69	.19	35	4.08	....	1	.11	....	....	....	1.35	.16
138-141	75a	Conjunctivitis	27	3.04	....	....	....	....	....	....	.86	.10	26	3.03	....	....	....	....	....	....	.86	.10
142	75b	Trachoma	4	.45	....	....	....	....	....	....	.33	.04	4	.47	....	....	....	....	....	....	.33	.04
166	77	Pericarditis	....	....	....	....	....	....	....	....	.07	.01	....	....	....	....	....	....	....	....	.07	.01
167	78	Acute endocarditis	1	.11	....	....	....	2	2	.22	.02	.00	1	.12	....	....	....	2	2	.23	.02	.00
169-174	79	Organic heart disease	18	2.03	....	7	.79	2	2	.22	1.30	.15	14	1.63	....	7	.79	2	2	.23	1.05	.12
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	....	....	....	1	.11	....	....	....	....	....	....	....	....	1	.11	....	....	....	....	....
181	83b	Hemorrhoids	55	6.20	....	....	....	....	....	....	1.69	.19	51	5.95	....	....	....	....	....	....	1.57	.18
183	83d	Varicose veins	9	1.01	....	....	....	....	....	....	.85	.10	9	1.05	....	....	....	....	....	....	.85	.10
184	83e	Varicocele	15	1.69	....	....	....	....	....	....	.72	.08	15	1.75	....	....	....	....	....	....	.72	.08
185-187	84	Diseases of the lymphatic system	23	2.59	....	....	....	....	....	....	1.26	.14	22	2.57	....	....	....	....	....	....	1.27	.15
193-199	86	Diseases of the nasal fossae	96	10.81	....	1	.11	....	....	....	1.33	.15	89	10.38	....	1	.11	....	....	....	1.26	.15
200-202	87	Diseases of the larynx	2	.23	....	....	....	....	....	....	.03	.00	2	.23	....	....	....	....	....	....	.03	.00
203-204	88	Diseases of the thyroid body	10	1.13	....	1	.11	....	....	....	.65	.07	10	1.17	....	1	.11	....	....	....	.65	.08
205-206	89-90	Bronchitis	263	29.63	....	2	.23	....	....	....	5.10	.57	248	28.93	....	2	.23	....	....	....	4.96	.58
207	91	Broncho-pneumonia	5	.56	....	....	....	1	1	.11	.28	.03	5	.58	....	....	....	1	1	.11	.28	.03
208	92	Pneumonia	8	.90	....	....	....	1	1	.11	.60	.07	7	.82	....	....	....	1	1	.11	.56	.06
209-215	93	Pleurisy	11	1.24	....	....	....	....	....	....	.55	.06	10	1.17	....	....	....	....	....	....	.55	.06
219	96	Asthma	11	1.24	....	4	.45	....	....	....	.34	.04	11	1.28	....	4	.45	....	....	....	.34	.04

[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

TABLE NO. 71. *Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1915*—Continued.

Serial No.	International classification.		Hawaii, officers and enlisted men.										Hawaii, enlisted men.									
		Mean strength	S. G. O. 8,876—A. G. O., 9,216.										S. G. O., 8,572—A. G. O., 8,884.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
					(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
224-227	99a	Diseases of the teeth and gums	55	6.20							1.16	.13	52	6.07							.99	.12
228-231	99b	Other diseases of the mouth and annexa	1	.11							.00	.00										
232-236	100	Diseases of the pharynx	265	29.86							5.20	.59	260	30.33							5.16	.60
238	102	Ulcer of stomach	6	.68							.46	.05	5	.58							.44	.05
239-244	103	Other diseases of stomach (cancer excepted)	82	9.24							1.53	.17	77	8.98							1.49	.17
245-253	105	Diarrhea and enteritis	234	26.36		1	.11		1	.11	3.38	.38	213	24.85		1	.11		1	.11	3.14	.37
254	106	Ankylostomiasis	2	.23							.12	.01	2	.23							.12	.01
255-259	107	Intestinal parasites	8	.90							.12	.01	8	.93							.12	.01
260	108	Appendicitis	94	10.59				1	1	.11	6.31	.71	85	9.92				1	1	.11	5.76	.67
261-263	109	Hernia	29	3.27							2.43	.27	29	3.38							2.43	.28
264-267	110a	Diseases of the anus and fecal fistula	7	.79							.16	.02	7	.82							.16	.02
268-272	110b	Other diseases of the intestines	138	15.55		1	.11				1.84	.21	133	15.52		1	.11				1.74	.20
276	114	Biliary calculi	1	.11							.24	.03	1	.12							.24	.03
277-281	115	Other diseases of liver and gall bladder	22	2.48							1.10	.12	22	2.57							1.10	.13
288	119	Acute nephritis	3	.34				1	1	.11	.35	.04	3	.35				1	1	.11	.35	.04
289-291	120	Bright's disease	7	.79		1	.11				.52	.06	4	.47		1	.11				.36	.04
293-299	122	Other diseases of the kidney and annexa	4	.45							.69	.08	4	.47							.69	.08
303-306	124	Diseases of the bladder	25	2.82		2	.23				2.15	.24	25	2.92		2	.23				2.15	.25
304	124b	Enuresis	17	1.92		2	.23				2.04	.23	17	1.98		2	.23				2.04	.24
307-309	125	Diseases of the urethra, urinary abscess, etc	26	2.93							.94	.11	26	3.03							.94	.11

		genital organs (non-venereal)	48	5.41							1.24	.14	48	5.60							1.24	.15
322-323	143	Furuncle and carbuncle	126	14.19							2.02	.23	124	14.47							1.99	.24
324-325	144	Acute abscess and cellulitis	96	10.82							1.84	.21	96	11.20							1.84	.21
352-357	146	Diseases of the bones	27	3.04		1	.11				2.50	.28	26	3.03		1	.11				2.44	.29
358-360	147	Diseases of the joints	26	2.93							1.80	.20	24	2.80							1.72	.20
367	149g	Flat foot	7	.79							.20	.02	7	82							.20	.02
372	150	Congenital malformations	30	3.38							.79	.09	30	3.50							.79	.09
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	11	1.24							.25	.03	11	1.28							.25	.03
379	189Ba	Under observation, undiagnosed and unknown	3	.34							.08	.01	1	.12							.01	.00
380	189Bb	Malingering	3	.34							.08	.01	3	.35							.08	.01
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]																				
426-434	155-163	Suicides, all	1	.11				4	4	.43			1	.12				2	2	.23		
435	164	Poisoning by food	98	11.04									97	11.32								
436	165a	Venomous bites and stings	2	.23									2	.23								
437	165b	Other poisoning (deleterious gases excepted)	6	.68									6	.70								
439	167	Burns (conflagrations excepted)	51	5.75									50	5.83								
441	168a	Suffocation, strangulation						1	1	.11								1	1	.11		
442	169	Drowning, accidental						1	1	.11								1	1	.11		
443	170	Traumatism by firearms (other than specified)	25	2.82		2	.23						25	2.92		2	.23					
445	171	Traumatism by cutting or piercing instruments	70	7.89		2	.23						68	7.93		2	.23					
446	172	Traumatism by fall	234	26.36		1	.11	1	1	.11			224	26.13		1	.11					
448	174	Traumatism by machines	4	.45									4	.47								
449	175	Traumatism by other crushing	119	13.41		3	.34	1	1	.11			116	13.53		3	.34	1	1	.11		
450	176	Injuries by animals	43	4.84									41	4.78								

[1] Number of discharges and deaths which actually occurred.
[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.
[3] Noneffectiveness for individual external causes not tabulated.

TABLE No. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1915*—Continued.

Serial No.	International classification.		Hawaii, officers and enlisted men.										Hawaii, enlisted men.									
		Mean strength	S. G. O., 8,876—A. G. O., 9,215.										S. G. O., 8,572—A. G. O., 8,884.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.																				
453	179	Effects of heat	11	1.24									11	1.28								
456–458	182–184	Homicides, all	1	.11				1	1	.11			1	.12				1	1	.11		
460	186	Other external violence	442	49.79				1	1	.11			430	50.16				1	1	.11		
		DISEASES AND INJURIES GROUPED.																				
		General diseases	1,441	162.34		21	2.36	5	8	.87	67.80	7.64	1,421	165.77		21	2.36	5	8	.90	67.50	7.87
	1–19	Epidemic diseases	417	46.98				2	2	.22	18.89	2.13	399	46.55				2	2	.23	18.62	2.17
	20–59	Other general diseases	1,024	115.37		21	2.36	3	6	.65	48.91	5.51	1,022	119.23		21	2.36	3	6	.68	48.88	5.70
		Diseases of the nervous system and organs of special sense	230	25.92		41	4.61	2	3	.33	12.15	1.37	216	25.21		41	4.61	2	3	.34	11.52	1.35
	60–74	Of the nervous system	109	12.28		40	4.50	2	3	.33	7.12	.80	100	11.67		40	4.50	2	3	.34	6.66	.78
	75	Of the eye and its annexa	81	9.13							2.12	.33	76	8.87							2.74	.32
	76	Of the ear and its annexa	40	4.51		1	.11				2.91	.24	40	4.67		1	.11				2.12	.25
	77–85	Diseases of the circulatory system	131	14.76		8	.90	4	4	.43	6.08	.68	122	14.23		8	.90	4	4	.45	5.71	.67
	86–98	Diseases of the respiratory system	406	45.74		8	.90	2	2	.22	8.87	1.00	382	44.56		8	.90	2	2	.23	5.88	1.01

119–127	Diseases of the genito-urinary system	122	13.74	....	3	.34	1	1	.11	6.32	.71	118	13.77	....	3	.34	1	1	.11	6.14	.72
142–145	Diseases of the skin and cellular tissue	424	47.77	....	....	....	....	....	....	9.71	1.09	420	49.00	....	....	....	....	....	....	9.64	1.13
146–149	Diseases of the organs of locomotion	163	18.36	....	4	.45	....	....	....	7.46	.84	154	17.97	....	4	.45	....	....	....	7.24	.84
150	Malformations, etc	30	3.38	....	....	....	....	....	....	.79	.09	30	3.50	....	....	....	....	....	....	.79	.09
189	Ill-defined diseases	26	2.93	....	....	....	....	....	....	.56	.06	22	2.57	....	....	....	....	....	....	.48	.06
	Total for disease	3,917	441.30	....	87	9.79	15	20	2.17	143.81	16.20	3,779	440.85	....	87	9.79	15	20	2.25	140.52	16.39
155–186	External causes	1,129	127.20	....	10	1.13	10	10	1.09	35.81	4.03	1,098	128.09	....	10	1.13	7	7	.79	34.66	4.04
	Total for disease and external causes	5,046	568.50	....	97	10.92	25	30	3.26	179.61	20.24	4,877	568.94	....	97	10.92	22	27	3.04	175.18	20.44

[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

TABLE NO. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1915*—Continued.

Serial Nos.	International classification.		Hawaii, enlisted men, white.										Hawaii, enlisted men, colored.									
		Mean strength.........	S. G. O., 6,709—A. G. O., 7,021.										S. G. O., 1,863—A. G. O., 1,863.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
					(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
1	1	Typhoid fever	4	0.60							0.63	0.09										
2	1a	Paratyphoid fever	1	.15							.24	.04										
7-11	4	Malaria	15	2.24							.46	.07										
10		Tertian malarial fever	14	2.09							.45	.07										
11		Undetermined malarial fever	1	.15							.01	.00										
13	5b	Vaccinia	2	.30							.01	.00	2	1.07							0.01	0.01
14	6	Measles	22	3.28				2	2	0.28	1.70	.25										
15	7	Scarlet fever	2	.30							.13	.02										
17	9	Diphtheria	4	.60							.13	.02										
18	10	Influenza	142	21.17							2.97	.44	15	8.05							.19	.10
21-23	14	Dysentery	17	2.53							2.08	.31										
21		Bacillary	4	.60							.20	.03										
22		Entamoebic	11	1.64							1.50	.22										
23		Unclassified	2	.30							.38	.06										
27	18	Erysipelas	2	.30							.08	.01										
31	19d	German measles	23	3.43							1.53	.23	3	1.61							.22	.12
34	19g	Mumps	123	18.33							7.21	1.07	16	8.59							.82	.44
42-46	25	Mycoses	1	.15							.02	.00										
49-57	28-34	Tuberculosis, all	23	3.43		8	1.14		1	.14	1.50	.22	8	4.29		3	1.61		2	1.07	.88	.47
49-51	28	Tuberculosis of lungs	22	3.28		7	1.00		1	.14	1.40	.21	6	3.22		2	1.07		1	.54	.53	.29
52	29	Miliary tuberculosis, acute	1	.15							.10	.02							1	.54		
53-57	30-34	Tuberculosis of other organs				1	.14						2	1.07		1	.54				.35	.19
59-74	37-38	Venereal diseases, all	621	92.56		4	.57	1	1	.14	31.35	4.67	228	122.38		1	.54				1.10	5.93
59-64	37	Syphilis	160	23.85		3	.43				8.82	1.32	76	40.79		1	.54				5.36	2.88

		tion	388	57.83		1	.14	1	1	.14	19.79	2.94	129	69.24							1.81	2.58
80	46	Benign tumors	2	.30							.01	.00	2	1.07							.02	.01
81-85	47-48	Rheumatism, articular, all	21	3.13		1	.14				1.70	.25	8	4.29							.28	.15
81-82	47	Acute articular rheumatism	14	2.09							1.16	.17	7	3.76							.16	.09
83-85	48	Chronic articular rheumatism	7	1.04		1	.14				.54	.08	1	.54							.12	.06
89	51	Exophthalmic goitre	1	.15							.28	.04										
97-100	56	Alcoholism and results	82	12.22		4	.57	2	2	.28	1.28	.19	17	9.13							.26	.14
103-104	59	Other chronic poisoning, including drug habit	5	.75							.11	.02	1	.54							.01	.01
108	61a	Epidemic cerebrospinal meningitis	1	.15				1	1	.14	.30	.04				1	.54				.25	.13
110-115	63	Other diseases of spinal cord	1	.15		1	.14				.33	.05										
116	64	Cerebral hemorrhage, apoplexy	1	.15				1	1	.14	.01	.00										
117-119	66	Paralysis without specified cause	2	.30							.07	.01	4	2.15							.18	.10
120-126	67-68	Mental alienation	35	5.22		29	4.13				2.89	.43	4	2.15		3	1.61				.33	.18
127	69	Epilepsy	8	1.19		4	.57				.55	.08	2	1.07		1	.54				.26	.14
129-133	73	Neuralgia and neuritis	25	3.73		1	.14				1.16	.17	10	5.37							.20	.11
138-141	75a	Conjunctivitis	19	2.83							.75	.11	7	3.76							.11	.06
142	75b	Trachoma	3	.45							.30	.04	1	.54							.03	.02
166	77	Pericarditis																			.07	.04
167	78	Acute endocarditis						1	1	.14			1	.54				1	1	.54	.07	.04
169-174	79	Organic heart disease	13	1.94		7	1.00	1	1	.14	.81	.12	1	.54				1	1	.54	.24	.13
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc				1	.14															
181	83b	Hemorrhoids	34	5.07							1.06	.16	17	9.13							.50	.27
183	83d	Varicose veins	7	1.04							.74	.11	2	1.07							.11	.0
184	83e	Variocele	15	2.24							.72	.11										
185-187	84	Diseases of the lymphatic system	16	2.38							.84	.12	6	3.22							.44	.23
193-199	86	Diseases of the nasal fossæ	67	9.99		1	.14				1.07	.16	22	11.81							.19	.10
200-202	87	Diseases of the larynx	1	.15							.01	.00	1	.54							.02	.01
203-204	88	Diseases of the thyroid body	10	1.49		1	.14				.65	.10										
205-206	89-90	Bronchitis	192	28.62		2	.28				4.14	.62	56	30.06							.82	.44
207	91	Broncho-pneumonia	4	.60							.28	.04	1	.54				1	1	.54		
208	92	Pneumonia	5	.75				1	1	.14	.43	.06	2	1.07							.13	.07
09-215	93	Pleurisy	6	.89							.45	.07	4	2.15							.09	.05

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

TABLE NO. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1915*—Continued.

Serial Nos.	International classification.		Hawaii, enlisted men, white.										Hawaii, enlisted men, colored.									
		Mean strength.........	S. G. O., 6,709—A. G. O., 7,021.										S. G. O., 1,863—A. G. O., 1,863.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions		Discharges			Deaths			Noneffective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
219	96	Asthma	9	1.34		3	0.43				0.30	0.04	2	1.07		1	0.54				0.04	0.02
224–227	99a	Diseases of the teeth and gums	44	6.56							.87	.13	8	4.29							.11	.06
232–236	100	Diseases of the pharynx	221	32.94							4.52	.67	39	20.93							.64	.34
238	102	Ulcer of stomach	4	.60							.41	.06	1	.54							.03	.02
239–244	103	Other diseases of stomach (cancer excepted)	58	8.65							1.28	.19	19	10.20							.21	.11
245–253	105	Diarrhea and enteritis	191	28.47		1	.14		1	0.14	2.87	.43	22	11.81					1	0.54	.27	.15
254	106	Ankylostomiasis	2	.30							.12	.02										
255–259	107	Intestinal parasites	6	.89							.10	.01	2	1.07							.02	.01
260	108	Appendicitis	75	11.18							5.32	.79	10	5.37				1	1	.54	.44	.24
261–263	109	Hernia	23	3.43							1.96	.29	6	3.22							.47	.25
264–267	110a	Diseases of the anus and fecal fistula	3	.45							.10	.01	4	2.15							.07	.04
268–272	110b	Other diseases of the intestines	90	13.41		1	.14				1.23	.18	43	23.08							.51	.27
276	114	Biliary calculi	1	.15							.24	.04										
277–281	115	Other diseases of liver and gall bladder	21	3.13							1.07	.16	1	.54							.03	.01
288	119	Acute nephritis	2	.30				1	1	.14	.19	.03	1	.54							.17	.09
289–291	120	Bright's disease	3	.45		1	.14				.31	.05	1	.54							.05	.03
293–299	122	Other diseases of the kidney and annexa	4	.60							.69	.10										
303–306	124	Diseases of the bladder	23	3.43		2	.28				2.12	.32	2	1.07							.02	.01
304	124b	Enuresis	16	2.38		2	.28				2.02	.30	1	.54							.02	.01
307–309	125	Diseases of the urethra, urinary abscess, etc	14	2.09							.33	.05	12	6.44							.62	.33
313–319	127	Diseases of the male genital organs (non-	[illegible]	[illegible]							[illegible]	.14	15	8.05							.32	.17

		litis	71	10.58	....	....	....	....	....	....	1.33	.20	25	13.42	....	....	....	....	....	....	.51	.28
352-357	146	Diseases of the bones	24	3.58	....	....	....	....	....	....	2.36	.35	2	1.07	....	1	.54	....	....	....	.08	.04
358-360	147	Diseases of the joints	16	2.38	....	....	....	....	....	....	1.16	.17	8	4.29	....	....	....	....	....	....	.56	.30
367	149g	Flat foot	5	.75	....	....	....	....	....	....	.15	.02	2	1.07	....	....	....	....	....	....	.05	.03
372	150	Congenital malformations	23	3.43	....	....	....	....	....	....	.52	.08	7	3.76	....	....	....	....	....	....	.28	.15
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	7	1.04	....	....	....	....	....	....	.17	.02	4	2.15	....	....	....	....	....	....	.08	.05
379	189Ba	Under observation, undiagnosed and unknown	....	....	....	....	....	....	....	....	....	....	1	.54	....	....	....	....	....	....	.01	.01
380	189Bb	Malingering	2	.30	....	....	....	....	....	....	.08	.01	1	.54	....	....	....	....	....	....	.01	.00
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]																				
426-434	155-163	Suicides, all	1	.15	....	....	....	2	2	.28	....	....	....	....	....	....	....	....	....	....	....	....
435	164	Poisoning by food	49	7.30	....	....	....	....	....	....	....	....	48	25.76	....	....	....	....	....	....	....	....
436	165a	Venomous bites and sting	2	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
437	165b	Other poisoning (deleterious gases excepted)	5	.75	....	....	....	....	....	....	....	....	1	.54	....	....	....	....	....	....	....	....
439	167	Burns (conflagrations excepted)	48	7.15	....	....	....	....	....	....	....	....	2	1.07	....	....	....	....	....	....	....	....
441	168a	Suffocation, strangulation	....	....	....	....	....	1	1	.14	....	....	....	....	....	....	....	....	....	....	....	....
442	169	Drowning, accidental	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	.54	....	....
443	170	Traumatism by firearms (other than specified)	18	2.68	....	2	.28	....	....	....	....	....	7	3.76	....	....	....	....	....	....	....	....
445	171	Traumatism by cutting or piercing instruments	50	7.45	....	2	.28	....	....	....	....	....	18	9.66	....	....	....	....	....	....	....	....
446	172	Traumatism by fall	193	28.77	....	1	.14	....	....	....	....	....	31	16.64	....	....	....	....	....	....	....	....
448	174	Traumatism by machines	4	.60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
449	175	Traumatism by other crushing	103	15.35	....	3	.43	....	....	....	....	....	13	6.98	....	....	....	1	1	.54	....	....
450	176	Injuries by animals	41	6.11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
453	179	Effects of heat	11	1.64	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
456-458	182-4	Homicides, all	....	....	....	....	....	....	....	....	....	....	1	.54	....	....	....	1	1	.54	....	....
460	186	Other external violence	337	50.23	....	....	....	1	1	.14	....	....	93	49.92	....	....	....	....	....	....	....	....

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

[3] Noneffectiveness for individual external causes not tabulated.

TABLE NO. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1915*—Continued.

Serial Nos.	International classification.		Hawaii, enlisted men, white.										Hawaii, enlisted men, colored.									
		Mean strength.........	S. G. O., 6,709—A. G. O., 7,021.										S. G. O., 1,863—A. G. O., 1,863.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
					(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
		DISEASES AND INJURIES GROUPED.																				
		General diseases........	1,117	166.50	....	17	2.42	5	6	0.85	53.62	7.99	304	163.18	....	4	2.15	....	2	1.07	13.88	7.45
	1–19	Epidemic diseases..	359	53.51	....	....	....	2	2	.28	17.23	2.57	40	21.47	....	....	....	....	....	....	1.38	.74
	20–59	Other general diseases..............	758	112.98	....	17	2.42	3	4	.57	3.64	5.42	264	141.70	....	4	2.15	....	2	1.07	12.50	6.71
		Diseases of the nervous system and organs of special sense..........	170	25.34	....	36	5.12	2	2	.28	9.58	1.43	46	24.70	....	5	2.68	....	....	....	1.94	1.04
	60–74	Of the nervous system...........	78	11.63	....	35	4.98	2	2	.28	5.43	.81	22	11.81	....	5	2.68	....	....	....	1.23	.66
	75	Of the eye and its annexa...........	53	7.90	....	....	....	....	....	....	2.04	.30	23	12.35	....	....	....	....	....	....	.70	.38
	76	Of the ear and its annexa...........	39	5.81	....	1	.14	....	....	....	2.12	.32	1	.54	....	....	....	....	....	....	.01	.00
	77–85	Diseases of the circulatory system..........	92	13.71	....	8	1.14	2	2	.28	4.29	.64	30	16.10	....	....	....	2	2	1.07	1.42	.76
	86–98	Diseases of the respiratory system..........	294	43.83	....	7	1.00	1	1	.14	7.34	1.09	88	47.24	....	1	.54	1	1	.54	1.28	.69
	99–118	Diseases of the digestive system..........	739	110.15	....	2	.28	....	1	.14	20.09	2.99	155	83.20	....	....	....	1	2	1.07	2.80	1.50
	119–127	Diseases of the genito-urinary system.......	87	12.97	....	3	.43	1	1	.14	4.96	.74	31	16.64	....	....	....	....	....	....	1.18	.63
	142–145	Diseases of the skin and cellular tissue........	346	51.58	....	....	....	....	....	....	7.79	1.16	74	39.72	....	....	....	....	....	....	1.85	1.00
	146–149	Diseases of the organs of locomotion.........	125	18.63	....	3	.43	....	....	....	6.16	.92	29	15.57	....	1	.54	....	....	....	1.07	.58

189	Ill-defined diseases.....	13	1.94	....	....	....	....	....	....	.30	.04	9	4.83	....	....	....	....	....	....	.18	.10
	Total for disease..	3,006	448.06	....	76	10.82	11	13	1.85	114.63	17.09	773	414.92	....	11	5.90	4	7	3.76	25 89	13.90
155-186	External causes........	878	130.87	....	10	1.42	4	4	.57	28.67	4.27	220	118.09	....	....	....	3	3	1.61	5.99	3.21
	Total for disease and external causes..........	3,884	578.93	....	86	12.25	15	17	2.42	143.30	21.36	993	533.01	....	11	5.90	7	10	5.37	31.88	17.11

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

TABLE No. 75.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit ports, for officers and native troops serving in Porto Ric*

Serial Nos.	International classification.		Army transports, officers and enlisted men.							
		Mean strength	S. G. O., 1,385—A. G. O., 1,385.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Non-effective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
2	1a	Paratyphoid fever	.....	.....	.....	.....	.....	.....	.....	.....
5	2	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....
7-11	4	Malaria	16	11.55	.....	.....	.....	.....	0.45	0.3
7	.....	Estivo-autumnal fever	.....	.....	.....	.....	.....	.....	.08	.0
8	.....	Malarial cachexia	.....	.....	.....	.....	.....	.....	.05	.0
9	.....	Quartan malarial fever	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	Tertian malarial fever	16	11.55	.....	.....	.....	.....	.31	.2
11	.....	Undetermined malarial fever	.....	.....	.....	.....	.....	.....	.....	.....
12	5	Smallpox and varioloid	1	.72	.....	.....	.....	.....	.00	.0
13	5b	Vaccinia	1	.72	.....	.....	.....	.....	.....	.....
14	6	Measles	28	20.22	.....	.....	.....	.....	.91	.6
15	7	Scarlet fever	1	.72	.....	.....	.....	.....	.08	.0
18	10	Influenza	8	5.78	.....	.....	.....	.....	.11	.0
19	12	Asiatic cholera	.....	.....	.....	.....	.....	.....	.....	.....
21-23	14	Dysentery	4	2.89	.....	.....	.....	.....	.80	.5
21	.....	Bacillary	.....	.....	.....	.....	.....	.....	.....	.....
22	.....	Entamoebic	3	2.17	.....	.....	.....	.....	.78	.5
23	.....	Unclassified	1	.72	.....	.....	.....	.....	.02	.
29	19b	Dengue	3	2.17	.....	.....	.....	.....	.18	.1
31	19d	German measles	.....	.....	.....	.....	.....	.....	.....	.....
34	19g	Mumps	106	76.53	.....	.....	.....	.....	2.16	1.5
49-57	28-34	Tuberculosis, all	7	5.05	.....	.....	.....	.....	7.88	5.6
49-51	28	Tuberculosis of lungs	7	5.05	.....	.....	.....	.....	7.70	5.5
53-57	30-34	Tuberculosis of other organs	.....	.....	.....	.....	.....	.....	.18	.1
59-74	37-38	Venereal diseases, all	182	131.41	.....	.....	.....	.....	3.83	2.7
59-64	37	Syphilis	13	9.39	.....	.....	.....	.....	1.94	1.4
65-67	38a	Soft chancre	41	29.60	.....	.....	.....	.....	.08	.
68-74	38b	Gonococcus infection	128	92.42	.....	.....	.....	.....	1.81	1.3
80	46	Benign tumors	.....	.....	.....	.....	.....	.....	.....	.....
81-85	47-48	Rheumatism, articular, all	5	3.61	.....	.....	.....	.....	.64	.
81-82	47	Acute articular rheumatism	5	3.61	.....	.....	.....	.....	.31	.
83-85	48	Chronic articular rheumatism	.....	.....	.....	.....	.....	.....	.33	.
87-88	50	Diabetes	1	.72	.....	.....	1	0.72	.01	.
89	51	Exophthalmic goitre	.....	.....	.....	.....	.....	.....	.38	.
97-100	56	Alcoholism and results	5	3.61	.....	.....	.....	.....	.59	.
103-104	59	Other chronic poisoning, including drug habit	.....	.....	.....	.....	.....	.....	.44	.
108	61a	Epidemic cerebrospinal meningitis.	1	.72	.....	.....	.....	.....	.04	.
109	62	Locomotor ataxia	.....	.....	.....	.....	.....	.....	.08	.
110-115	63	Other diseases of spinal cord	.....	.....	.....	.....	.....	.....	.13	.
116	64	Cerebral hemorrhage, apoplexy	.....	.....	.....	.....	.....	.....	.08	.
117-119	66	Paralysis without specified cause	.....	.....	.....	.....	.....	.....	.08	.
120-126	67-68	Mental alienation	5	3.61	.....	.....	.....	.....	8.31	6.
127	69	Epilepsy	.....	.....	.....	.....	.....	.....	1.56	1.
129-133	73	Neuralgia and neuritis	7	5.05	.....	.....	.....	.....	.74	.
138-141	75a	Conjunctivitis	3	2.17	.....	.....	.....	.....	.10	.
142	75b	Trachoma	.....	.....	.....	.....	.....	.....	.06	.
166	77	Pericarditis	1	.72	.....	.....	.....	.....	.02	.
167	78	Acute endocarditis	.....	.....	.....	.....	.....	.....	.08	.
169-174	79	Organic heart disease	2	1.44	.....	.....	1	.72	1.13	.
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	.....	.....	.....	.....	.....	.....	.14	.
181	83b	Hemorrhoids	2	1.44	.....	.....	.....	.....	.07	.
183	83d	Varicose veins	.....	.....	.....	.....	.....	.....	.....	.....
185-187	84	Diseases of the lymphatic system	5	3.61	.....	.....	.....	.....	.15	.
193-199	86	Diseases of the nasal fossæ	23	16.61	.....	.....	.....	.....	.31	.
200-202	87	Diseases of the larynx	.....	.....	.....	.....	.....	.....	.....	.....
203-204	88	Diseases of the thyroid body	.....	.....	.....	.....	.....	.....	.04	.
205-206	89-90	Bronchitis	35	25.27	.....	.....	.....	.....	.72	.
207	91	Broncho-pneumonia	1	.72	.....	.....	.....	.....	.05	.
208	92	Pneumonia	5	3.61	.....	.....	.....	.....	.16	.
209-215	93	Pleurisy	5	3.61	.....	.....	.....	.....	.72	.
216-217	94	Pulmonary congestion and pulmonary apoplexy	.....	.....	.....	.....	.....	.....	.....	.....
219	96	Asthma	.....	.....	.....	.....	.....	.....	.38	.
224-227	99a	Diseases of the teeth and gums	.....	.....	.....	.....	.....	.....	.02	.

ios per 1,000 of mean strength, for officers and enlisted men serving on Army trans-
native troops in Philippine Islands, year 1915.

Porto Rico, officers and enlisted native troops.								Philippine Islands, native troops.							
S. G. O., 719—A. G. O., 719.								S. G. O., 5,505—A. G. O., 5,505.							
Admissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Discharges.		Deaths.		Non-effective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
....	....	....	....	....	....	....	....	2	0.36	....	....	....	....	0.19	0.04
....	....	....	....	....	....	....	....	3	.54	....	....	....	....	.13	.02
6	8.34	....	....	....	....	0.24	0.34	441	80.11	....	....	....	....	8.50	1.54
....	....	....	....	....	....	....	....	82	14.90	....	....	....	....	2.17	.39
....	....	....	....	....	....	....	....	2	.36	....	....	....	....	.05	.01
....	....	....	....	....	....	....	....	4	.73	....	....	....	....	.07	.01
[illegible]	8.34	....	....	....	....	.24	.34	292	53.04	....	....	....	....	5.19	.94
....	....	....	....	....	....	....	....	61	11.08	....	....	....	....	1.02	.19
1	1.39	....	....	....	....	.16	.22	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	6	1.09	....	....	....	....	.18	.03
....	....	....	....	....	....	....	....	8	1.45	....	....	....	....	.37	.07
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2	2.78	....	....	....	....	.07	.10	9	1.63	....	....	....	....	.22	.04
....	....	....	....	....	....	....	....	2	.36	....	....	1	0.18	.03	.01
16	22.25	....	....	....	....	.41	.56	55	9.99	....	....	1	.18	3.09	.56
....	....	....	....	....	....	....	....	21	3.81	....	....	....	....	1.16	.21
[illegible]	12.52	....	....	....	....	.18	.24	28	5.09	....	....	....	....	1.62	.30
7	9.74	....	....	....	....	.23	.32	6	1.09	....	....	1	.18	.30	.05
55	76.50	....	....	....	....	2.83	3.94	92	16.71	....	....	....	....	1.56	.28
....	....	....	....	....	....	....	....	2	.36	....	....	....	....	.06	.01
....	....	....	....	....	....	....	....	17	3.09	....	....	....	....	.92	.17
1	1.39	1	1.47	....	....	.13	.18	25	4.54	25	4.54	....	....	3.17	.58
1	1.39	1	1.47	....	....	.13	.18	25	4.54	25	4.54	....	....	3.07	.56
....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.02
61	84.84	2	2.94	....	....	3.29	4.57	189	34.33	1	.18	....	....	10.79	1.96
18	25.04	....	....	....	....	.95	1.33	31	5.63	....	....	....	....	2.79	.51
19	26.43	....	....	....	....	1.21	1.68	17	3.09	....	....	....	....	.85	.15
24	33.38	2	2.94	....	....	1.12	1.56	141	25.61	1	.18	....	....	7.14	1.30
1	1.39	....	....	....	....	.06	.09	15	2.72	....	....	....	....	.55	.10
4	5.56	....	....	....	....	.30	.43	3	.54	....	....	....	....	.16	.03
1	1.39	....	....	....	....	.13	.18	3	.54	....	....	....	....	.16	.03
3	4.17	....	....	....	....	.17	.24	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2	2.78	....	....	....	....	.01	.02	1	.18	....	....	....	....	.00	.00
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1	1.39	....	....	....	....	.46	.64	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	1	1.47	....	....	.08	.11	1	.18	....	....	1	0.18	.15	.03
1	1.39	....	....	....	....	.19	.26	13	2.36	16	2.91	....	....	.90	.16
....	....	....	....	....	....	....	....	3	.54	1	.18	....	....	.16	.03
5	6.95	....	....	....	....	.12	.16	8	1.45	2	.36	....	....	.84	.15
2	2.78	....	....	....	....	.03	.04	67	12.17	....	....	....	....	.99	.18
....	....	....	....	....	....	....	....	5	.91	....	....	....	....	.29	.05
1	1.39	....	....	1	1.39	.00	.00	2	.36	....	....	1	.18	.30	.05
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	2	.36	....	....	....	....	.32	.06
....	....	....	....	1	1.39	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	1	.18	....	....	....	....	.02	.00
....	....	....	....	....	....	....	....	2	.36	1	.18	....	....	.16	.03
23	31.99	....	....	....	....	.76	1.06	16	2.91	....	....	....	....	.79	.14
20	27.82	....	....	....	....	.29	.40	10	1.82	1	.18	....	....	.10	.02
2	2.78	....	....	....	....	.11	.15	12	2.18	....	....	....	....	.30	.05
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	157	28.52	....	....	....	....	2.62	.48
....	....	....	....	....	....	....	....	9	1.63	....	....	....	....	.42	.08
....	....	....	....	....	....	....	....	11	2.00	....	....	1	.18	.91	.17
1	1.39	....	....	....	....	.09	.13	12	2.18	....	....	....	....	.65	.12
....	....	....	....	....	....	....	....	1	.18	....	....	....	....	.03	.01
4	5.56	....	....	....	....	.09	.12	7	1.27	1	.18	....	....	.41	.07
6	8.34	....	....	....	....	.06	.09	21	3.81	....	....	....	....	.33	.60

TABLE No. 75.—*Admissions to sick report, discharges, deaths, and noneffectiveness, w ports, for officers and native troops serving in Porto Ri*

Serial Nos.	International classification.		Army transports, officers and enlisted men.							
		Mean strength	S. G. O., 1,385—A. G. O., 1,385.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Non-effective	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio
228-231	99b	Other diseases of the mouth and annexa								
232-236	100	Diseases of the pharynx	73	52.71					0.79	0
238	102	Ulcer of stomach							.16	
239-244	103	Other diseases of stomach (cancer excepted)	20	14.44					.47	
245-253	105	Diarrhea and enteritis	57	41.16					.76	
254	106	Ankylostomiasis								
255-259	107	Intestinal parasites	1	.72					.01	
260	108	Appendicitis	4	2.89					.27	
261-263	109	Hernia	1	.72			1	0.72	.33	
264-267	110a	Diseases of the anus and fecal fistula								
268-272	110b	Other diseases of the intestines	14	10.11					.79	
276	114	Biliary calculi	1	.72					.08	
277-281	115	Other diseases of liver and gall bladder	5	3.61					.27	
288	119	Acute nephritis	3	2.17					.11	
289-291	120	Bright's disease							.41	
293-299	122	Other diseases of the kidney and annexa							.08	
303-306	124	Diseases of the bladder	1	.72					.59	
304	124b	Enuresis							.59	
307-309	125	Diseases of the urethra, urinary abscess, etc							.00	
310-312	126	Diseases of the prostate							.08	
313-319	127	Diseases of the male genital organs (non-venereal)	4	2.89					.07	
322-323	143	Furuncle and carbuncle	3	2.17					.02	
324-325	144	Acute abscess and cellulitis	9	6.50					.34	
352-357	146	Diseases of the bones	3	2.17					.11	
358-360	147	Diseases of the joints							.65	
367	149g	Flat foot							4.13	
372	150	Congenital malformations	1	.72					.02	
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation								
379	189Ba	Under observation, undiagnosed and unknown							.15	
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426-434	155-163	Suicides, all								
435	164	Poisoning by food								
436	165a	Venomous bites and stings								
437	165b	Other poisoning (deleterious gases excepted)								
438	166	Conflagration								
439	167	Burns (conflagrations excepted)	1	.72						
441	168a	Suffocation, strangulation								
442	169	Drowning, accidental					1	.72		
443	170	Traumatism by firearms (other than specified)								
445	171	Traumatism by cutting or piercing instruments	5	3.61						
446	172	Traumatism by fall	14	10.11						
448	174	Traumatism by machines	2	1.44						
449	175	Traumatism by other crushing	2	1.44						
450	176	Injuries by animals								
453	179	Effects of heat	1	.72						
456-458	182-4	Homicides, all								
459	185	Fractures, causes not specified								
460	186	Other external violence	9	6.50						
		Killed or wounded in action:								
462		By bullet								
463		By shell								

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[1] Noneffectiveness for individual external causes not tabulated.

tios per 1,000 of mean strength, for officers and enlisted men serving on Army trans-
r native troops in Philippine Islands, year 1915—Continued.

Porto Rico, officers and enlisted native troops.								Philippine Islands, native troops.							
S. G. O., 719—A. G. O., 719.								S. G. O., 5,505—A. G. O., 5,505.							
Admissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Discharges.		Deaths.		Non-effective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
......	......	......	......	......	......	......	......	5	0.91	......	......	......	......	0.12	0.02
6	8.34	......	......	......	......	0.10	0.13	39	7.08	......	......	......	......	.58	.11
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
2	2.78	......	......	......	......	.06	.09	21	3.81	......	......	......	......	0.20	0.04
14	19.47	......	......	......	......	.27	.37	207	37.60	......	......	......	......	2.47	.45
4	5.56	......	......	......	......	.18	.26	52	9.45	1	0.18	1	0.18	1.05	.19
......	......	......	......	......	......	......	......	33	5.99	......	......	......	......	.69	.12
......	......	......	......	......	......	......	......	4	.73	......	......	1	.18	.15	.03
......	......	......	......	......	......	......	......	4	.73	......	......	......	......	.46	.08
1	1.39	......	......	......	......	.04	.05	5	.91	......	......	......	......	.14	.03
5	6.95	......	......	......	......	.07	.09	332	60.31	......	......	......	......	3.43	.62
......	......	......	......	......	......	......	......	1	.18	......	......	......	......	.02	.00
2	2.78	......	......	......	......	.02	.03	3	.54	......	......	......	......	.96	.17
1	1.39	......	......	......	......	.06	.09	1	.18	......	......	......	......	.04	.01
......	......	......	......	......	......	......	......	3	.54	......	......	1	.18	.18	.03
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
10	13.91	......	......	......	......	.53	.74	20	3.63	......	......	......	......	.41	.07
18	25.03	......	......	......	......	.37	.51	116	21.07	......	......	......	......	2.62	.48
32	44.51	......	......	......	......	.84	1.16	201	36.51	......	......	......	......	5.67	1.03
1	1.39	......	......	......	......	.11	.15	15	2.72	1	.18	......	......	.70	.13
2	2.78	1	1.47	......	......	.69	.96	12	2.18	1	.18	......	......	.55	.10
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	5	.91	1	.18	......	......	.17	.03
5	6.95	......	......	......	......	.08	.12	32	5.81	......	......	......	......	.68	.12
3	4.17	......	......	......	......	.22	.30	3	.54	......	......	......	......	.28	.05
......	......	......	......	......	......	......	......	......	......	......	......	1	.18	......	......
......	......	......	......	......	......	......	......	2	.36	......	......	......	......	......	......
1	1.39	......	......	......	......	......	......	3	.54	......	......	......	......	......	......
......	......	......	......	......	......	......	......	1	.18	......	......	......	......	......	......
......	......	......	......	......	......	......	......	2	.36	......	......	......	......	......	......
2	2.78	......	......	......	......	......	......	13	2.36	......	......	......	......	......	......
......	......	......	......	......	......	......	......	1	.18	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1	1.39	......	......	......	......	......	......	7	1.27	1	.18	1	.18	......	......
6	8.34	......	......	......	......	......	......	62	11.26	......	......	1	.18	......	......
12	16.69	......	......	......	......	......	......	133	24.16	2	.36	......	......	......	......
2	2.78	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1	1.39	......	......	......	......	......	......	18	3.27	......	......	......	......	......	......
1	1.39	......	......	......	......	......	......	3	.54	......	......	......	......	......	......
......	......	......	......	1	1.39	......	......	15	2.72	......	......	......	......	......	......
......	......	......	......	......	......	......	......	2	.36	......	......	2	.36	......	......
......	......	......	......	......	......	......	......	3	.54	......	......	......	......	......	......
14	19.47	......	......	......	......	......	......	235	42.69	......	......	......	......	......	......
......	......	......	......	......	......	......	......	1	.18	2	.36	......	......	......	......
......	......	......	......	......	......	......	......	1	.18	2	.36	......	......	......	......

TABLE No. 75.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi ports, for officers and native troops serving in Porto Ric*

Serial Nos.	International classification.		Army transports, officers and enlisted men.							
		Mean strength	S. G. O., 1,385—A. G. O., 1,385.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Non-effective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		DISEASES AND INJURIES GROUPED.								
		General diseases	368	265.70	......	......	1	0.72	18.61	13.
	1–19	Epidemic diseases	168	121.30	......	......	......	......	4.69	3.
	20–59	Other general diseases	200	144.40	......	......	1	.72	13.93	10.
		Diseases of the nervous system and organs of special sense	22	15.89	......	......	......	......	13.26	9.
	60–74	Of the nervous system	13	9.39	......	......	......	......	12.35	8.
	75	Of the eye and its annexa	5	3.61	......	......	......	......	.39	.
	76	Of the ear and its annexa	4	2.89	......	......	......	......	.52	.
	77–85	Diseases of the circulatory system	11	7.94	......	......	1	.72	1.70	1.
	86–98	Diseases of the respiratory system	69	49.82	......	......	......	......	2.47	1.
	99–118	Diseases of the digestive system	176	127.08	......	......	1	.72	3.96	2.
	119–127	Diseases of the genito-urinary system	9	6.50	......	......	......	......	1.38	.
	142–145	Diseases of the skin and cellular tissue	26	18.77	......	......	......	......	.89	.
	146–149	Diseases of the organs of locomotion	5	3.61	......	......	......	......	5.55	4.
	150	Malformations, etc	1	.72	......	......	......	......	.02	.
	189	Ill-defined diseases	34	24.55	......	......	......	......	.54	.
		Total for disease	721	520.58	......	......	3	2.17	48.38	34.
	155–186	External causes	35	25.27	......	......	1	.72	2.80	2.
		Total for disease and external causes	756	545.85	......	......	4	2.89	51.18	36.

tios per 1,000 of mean strength, for officers and enlisted men serving on Army trans-
r native troops in Philippine Islands, year 1915—Continued.

Porto Rico, officers and enlisted native troops.								Philippine Islands, native troops.							
S. G. O., 719—A. G. O., 719.								S. G. O., 5,505—A. G. O., 5,505.							
Admissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Discharges.		Deaths.		Non-effective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
153	212.80	3	4.41	......	......	7.79	10.83	891	161.86	28	5.09	3	0.54	31.23	5.67
83	115.44	......	......	......	......	3.96	5.51	657	119.35	2	.36	2	.36	16.18	2.94
70	97.36	3	4.41	......	......	3.82	5.32	234	42.51	26	4.72	1	.18	15.05	2.73
14	19.47	1	1.47	......	......	.99	1.38	155	28.06	21	4.81	1	.18	4.85	.88
8	11.13	1	1.47	......	......	.87	1.21	28	5.09	19	3.45	1	.18	2.10	.38
3	4.17	......	......	......	......	.06	.08	104	18.89	2	.36	......	......	2.24	.41
3	4.17	......	......	......	......	.06	.09	23	4.18	......	......	......	......	.52	.09
25	34.77	......	......	2	2.78	.79	1.10	26	4.72	1	.18	1	.18	1.65	.30
27	37.55	......	......	......	......	.58	.80	222	40.33	3	.54	1	.18	5.65	1.03
40	55.63	......	......	......	......	.80	1.11	727	132.06	1	.18	2	.36	10.59	1.92
12	16.69	......	......	......	......	.60	.83	24	4.36	......	......	1	.18	.62	.11
66	91.80	......	......	......	......	1.96	2.72	504	91.56	1	.18	......	......	15.69	2.85
12	16.69	1	1.47	......	......	.99	1.38	68	12.35	2	.36	......	......	1.86	.34
......	......	......	......	......	......	......	......	5	.91	1	.18	......	......	.17	.03
8	11.13	......	......	......	......	.30	.42	35	6.36	......	......	......	......	.96	.17
357	496.52	5	7.34	2	2.78	14.79	20.57	2,657	482.65	58	10.53	9	1.63	73.28	13.31
40	55.63	......	......	1	1.39	1.29	1.79	502	91.19	5	.91	5	.91	13.04	2.37
397	552.16	5	7.34	3	4.17	16.08	22.36	3,159	573.84	63	11.44	14	2.54	86.30	15.68

TABLE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, expressed in ratios per 1,000 of mean strength, for American troops (enlisted men) on duty at home stations, placed in comparison with the same data for those serving at distant stations, year 1915.*

Serial Nos.	International classification.	Causes of admission to sick report.	United States.				Philippine Islands.				Hawaii.				Alaska.			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
1	1	Typhoid fever	0.05	......	......	0.01	......	......	......	......	0.47	......	......	0.07	......	......	......	......
2	1a	Paratyphoid fever	.06	......	......	.01	0.08	......	......	0.01	.12	......	......	.03	......	......	......	......
7-11	4	Malaria	12.62	......	0.03	.27	63.12	......	......	1.14	1.75	......	......	.05	1.31	......	......	0.01
7	......	Estivo-autumnal fever	1.95	......	.03	.04	11.07	......	......	.24	......	......	......	......	1.31	......	......	.01
8	......	Malarial cachexia	.08	......	......	.01	.25	......	......	.01	......	......	......	......	......	......	......	......
9	......	Quartan malarial fever	.17	......	......	.00	.34	......	......	.00	......	......	......	......	......	......	......	......
10	......	Tertian malarial fever	9.27	......	......	.20	50.01	......	......	.85	1.63	......	......	.05	......	......	......	......
11	......	Undetermined malarial fever	1.15	......	......	.02	1.44	......	......	.03	.12	......	......	.00	......	......	......	......
12	5	Smallpox and varioloid	.05	......	......	.00	......	......	......	.01	......	......	......	......	......	......	......	......
13	5b	Vaccinia	5.71	......	......	.07	......	......	......	......	.47	......	......	.00	......	......	......	......
14	6	Measles	8.71	0.12	.31	.54	1.94	......	......	.15	2.57	......	0.23	.20	......	......	......	......
15	7	Scarlet fever	.74	......	.02	.07	......	......	......	......	.23	......	......	.01	......	......	......	......
17	9	Diphtheria	.88	......	......	.04	.08	......	0.08	.00	.47	......	......	.02	......	......	......	......
18	10	Influenza	42.05	......	.06	.54	3.21	......	......	.06	18.31	......	......	.37	9.17	......	......	.14
20	13	Cholera nostras	.02	......	......	.00	......	......	......	......	......	......	......	......	......	......	......	......
21-23	14	Dysentery	1.41	.06	......	.11	5.32	0.08	.17	.31	1.98	......	......	.24	1.31	......	......	.02
21	......	Bacillary	.16	......	......	.01	.17	......	......	.01	.47	......	......	.02	......	......	......	......
22	......	Entamoebic	.91	.06	......	.10	4.90	.08	.17	.29	1.28	......	......	.17	1.31	......	......	.02
23	......	Unclassified	.35	......	......	.01	.25	......	......	.01	.23	......	......	.04	......	......	......	......
27	18	Erysipelas	.30	.02	.02	.01	.08	......	......	.00	.23	......	......	.01	......	......	......	......
29	19b	Dengue	.80	......	......	.01	131.31	......	......	1.94	......	......	......	......	......	......	......	......
31	19d	German measles	.72	......	......	.02	......	......	......	......	3.03	......	......	.20	......	......	......	......
34	19g	Mumps	8.02	......	......	.36	13.01	......	......	.83	16.22	......	......	.94	......	......	......	......
37	20	Purulent infection and septicemia	.06	......	.06	.00	.25	......	25	.00	......	......	......	......	......	......	......	......
42-46	25	Mycoses	.02	......	......	.00	......	......	......	......	.12	......	......	.00	......	......	......	......
49-57	28-34	Tuberculosis, all	2.68	1.67	.28	2.33	6.42	3.28	.50	.50	3.62	1.24	.34	.28	1.31	......	......	.15
49-51	28	Tuberculosis of lungs	2.46	1.59	.20	2.27	6.25	3.20	.50	.47	3.27	1.01	.23	.23	1.31	......	......	.15
52	29	Miliary tuberculosis, acute	.02	......	.02	.01	......	......	......	......	.12	......	.11	.01	......	......	......	......
53-57	30-34	Tuberculosis of other organs	.21	.09	.07	.07	.16	.08	......	.03	.23	.23	......	.04	......	......	......	......
59-74	37-38	Venereal diseases, all	83.60	.88	.06	3.99	186.32	.93	.08	8.10	99.04	.56	.11	4.95	35.39	......	......	.54
59-64	37	Syphilis	17.24	.54	.05	1.22	40.73	.50	.08	1.89	27.53	.45	......	1.65	3.93	......	......	.16
65-67	38a	Soft chancre	15.80	.03	......	.72	38.02	......	......	1.17	11.20	......	......	.43	7.86	......	......	.03
68-71	38b	Gonococcus infection	50.56	.31	.02	2.05	107.57	.42	......	5.04	60.31	.11	.11	2.87	23.59	......	......	.35
75-79	39-45	Cancer and other malignant tumors	.27	.08	.14	.07	.17	......	......	.03	......	......	......	......	1.31	......	......	.01
80	46	Benign tumors	1.43	......	.02	.04	.93	......	......	.05	.47	......	......	.00	1.31	......	......	.03
81-85	47-48	Rheumatism, articular, all	6.65	26		47	3.29	08		.25	3.38	11	......	.23	5.24	......	......	.06

87-88	50	Diabetes	.20	.02	.05	.02												
89	51	Exophthalmic goitre	.25	.12		.07	.34	.08		.03	.12			.03	1.31			
97-100	56	Alcoholism and results	13.07	.20	.06	.21	18.08	.50		.21	11.55	.45	.23	.18	10.48	1.31		.08
101-102	57-58	Chronic occupational poisoning	.06			.01												
103-104	59	Other chronic poisoning, including drug habit	.39	.03		.04	.42	.50		.02	.70			.01	1.31			.01
107	61	Simple meningitis	.03	.03		.02												
108	61a	Epidemic cerebrospinal meningitis	.36	.09	.14	.05					.12	.11	.11	.06				
109	62	Locomotor ataxia	.14	.03		.04	.25	.08		.02								
110-115	63	Other diseases of spinal cord	.06	.05		.02	.25	.08	.08	.01	.12	.11		.04				
116	64	Cerebral hemorrhage, apoplexy	.11		.09	.00					.12		.11	.00				
117-119	66	Paralysis without specified cause	.20	.06		.03	.08			.00	.70			.03				
120-126	67-68	Mental alienation	3.04	2.54	.05	.95	7.27	7.99		.56	4.55	3.60	.11	.35	10.48	3.93	1.31	.28
127	69	Epilepsy	1.16	.60		.16	1.52	1.35		.12	1.17	.56		.09				
129-133	73	Neuralgia and neuritis	5.57	.25		.28	3.80	.34		.13	4.08	.11		.16	6.55	1.31		.21
138-141	75a	Follicular conjunctivitis	3.94	.03		.08	5.83			.10	3.03			.10				
142	75b	Trachoma	.09			.01	.17			.01	.47			.04				
166	77	Pericarditis	.06			.00								.01				
167	78	Acute endocarditis	.08	.02		.01	.17	.08		.00	.12		.23	.00				
169-174	79	Organic heart disease	1.05	.44	.29	.18	1.35	.67		.10	1.63	.79	.23	.12				
175	80	Angina pectoris	.14	.02	.03	.00	.08			.00								
176-177	81	Diseases of the arteries—atheroma, aneurism, etc	.17	.02	.08	.04	.17	.08	.08	.02		.11						
178-179	82	Embolism and thrombosis	.03	.02	.02	.00												
181	83b	Hemorrhoids	5.90			.17	5.49			.16	5.95			.18				
183	83d	Varicose veins	.60	.03		.03	59			.05	1.05			.10				
184	83e	Varicocele	2.54	.02		.14	3.89			.18	1.75			.08				
185-187	84	Diseases of the lymphatic system	5.66			.30	10.05			.43	2.57			.15				
193-199	86	Diseases of the nasal fossæ	15.93	.02		.26	7.86			.12	10.38	.11		.15	6.55			.12
200 202	87	Diseases of the larynx	3.03			.06	1.44			.03	.23			.00	7.86			.08
203 204	88	Diseases of the thyroid body	.13	.05		.03	.17			.02	1.17	.11		.08				
205-206	89-90	Bronchitis	36.92	.03	.02	.62	35.24	.08		.76	28.93	.23		.58	28.83			.34
207	91	Broncho-pneumonia	.69	.02	.08	.05	.17			.03	.58		.11	.03	1.31			.08
208	92	Pneumonia	2.75		.42	.20	2.20			.17	.82		.11	.06	1.31			.15
209-215	93	Pleurisy	2.71	.11	.05	.23	3.72			.18	1.17			.06	5.24			.29
216-217	94	Pulmonary congestion and pulmonary apoplexy	.02			.00												
219	96	Asthma	.80	.09		.07	.93	.34		.04	1.28	.45		.04	2.62			.05
220	97	Pulmonary emphysema	.03			.00												
221	98a	Haemoptysis	.08			.01	.17			.00					1.31			.01
222	98b	Hay fever	.02			.00												
224-227	99a	Diseases of the teeth and gums	5.27	.02		.10	4.73			.10	6.07			.12	5.21			.05
228-231	99b	Other diseases of the mouth and annexa	.96			.02	1.27			.03								
232-236	100	Diseases of the pharynx	72.38	.02	.02	1.01	56.78			.81	30.33			.60	45.87			.43
238	102	Ulcer of stomach	.22	.03	.02	.05	.17	.17		.02	.58			.05	1.31	1.31		.03
239-244	103	Other diseases of stomach (cancer excepted)	13.02	.09	.02	.24	11.32	.08	.08	.23	8.98			.17	5.24			.11
245-253	105	Diarrhea and enteritis	32.23		.05	.41	37.94			.51	24.85	.11	.11	.37	7.86			.04
254	106	Ankylostomiasis	.31	.02		.03	1.44			.05	.23			.01				
255-259	107	Intestinal parasites	1.00			.02	1.10			.02	.93			.01				

TABLE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, expressed in ratios per 1,000 of mean strength, for American troops (enlisted men) on duty at home stations, placed in comparison with the same data for those serving at distant stations, year 1915*—Continued.

Serial Nos.	International classification.	Causes of admission to sick report.	United States.				Philippine Islands.				Hawaii.				Alaska.			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
260	108	Appendicitis	7.47	0.02	0.15	0.54	11.83	0.08		0.95	9.92		0.11	0.67	6.55			0.40
261–263	109	Hernia	3.89	.26	.03	.40	2.53	.17		.27	3.38			.28	5.24			.28
264–267	110a	Diseases of the anus and fecal fistula	.91			.06	.59			.03	.82			.02				
268–272	110b	Other diseases of the intestines	23.00	.03		.31	63.54	.17		.79	15.52	0.11		.20	5.24			.07
275	113	Cirrhosis of liver	.08	.02	.02	.01												
276	114	Biliary calculi	.06	.02		.01	.17			.02	.12			.03				
277–281	115	Other diseases of liver and gall bladder	3.86	.03	.02	.17	6.51			.30	2.57			.13	5.24			.11
283–284	117	Simple peritonitis	.02		.02	.00												
288	119	Acute nephritis	.27		.05	.02	.68		0.08	.02	.35		.11	.04				
289–291	120	Bright's disease	.55	.15	.12	.12	.76	.08	.08	.05	.47	.11		.04				
293–299	122	Other diseases of the kidney and annexa	.28	.02		.03	.34			.04	.47			.08				
303–306	124	Diseases of the bladder	1.98	.42		.13	2.70	.34		.16	2.92	.23		.25	1.31			.03
304	124b	Enuresis	1.16	.42		.10	1.18	.34		.08	1.98	.23		.24				
307–309	125	Diseases of the urethra—urinary abscess, etc	1.18	.02		.04	2.45			.04	3.03			.11				
310–312	126	Diseases of the prostate	.14			.02	.42	.08		.02								
313–319	127	Diseases of the male genital organs (nonvenereal)	4.46	.02		.13	3.38			.10	5.60			.15	2.62			.07
322–323	143	Furuncle and carbuncle	17.66			.30	15.81			.27	14.47			.24	3.93			.05
324–325	144	Acute abscess and cellulitis	12.72	.02	.03	.32	21.46			.55	11.20			.21	3.93			.09
352–357	146	Diseases of the bones	2.06	.06	.02	.15	5.58	.08		.16	3.03	.11		.29				
358–360	147	Diseases of the joints	4.08	.31		.35	4.14	.17		.37	2.80			.20	3.93			.05
367	149g	Flat foot	2.24	1.19		.33	5.41	2.27		.33	.82			.02	2.62	2.62		.47
372	150	Congenital malformations	3.55	.02		.10	5.49			.21	3.50			.09	5.24			.20
373–374	154	Senility	.03			.00												
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	1.71			.03	4.31			.08	1.28			.03	1.31			.01
379	189Ba	Under observation, undiagnosed and unknown	.97		.02	.05	.68			.04	.12			.00				
380	189Bb	Malingering	.33			.01	.59			.01	.35			.01				
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]																
426–434	155–163	**Suicides, all**	.17		.59		.08		.51		.12		.23				1.31	

		Other poisoning (deleterious gases excepted)	.50	......	.08	......	1.01	......	......	......	.70	......	......	......	......	......	......	......
439	167	Burns (conflagrations excepted)	4.05	.05	......	......	3.63	......	.08	......	5.83	......	......	......	2.62	......	......	......
440	168	Absorption of deleterious gases	.03	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
441	168a	Suffocation, strangulation	.05	......	.03	......	......	......	......	......	......	......	.11	......	......	......	......	......
442	169	Drowning, accidental	......	......	.39	......	......	......	.25	......	......	......	.11	......	......	......	......	......
443	170	Traumatism by firearms (other than specified)	3.40	.37	.19	......	1.27	.08	......	......	2.92	.23	......	......	......	......	......	......
444	170a	Shot by sentry or guard	.06	......	.03	......	......	......	......	......	......	......	......	......	......	......	......	......
445	171	Traumatism by cutting or piercing instruments	9.15	.05	.02	......	10.31	.08	......	......	7.93	.23	......	......	6.55	......	......	......
446	172	Traumatism by fall	40.07	.34	.11	......	27.88	.25	.08	......	26.13	.11	......	......	20.97	......	......	......
448	174	Traumatism by machines	.99	.03	......	......	.25	......	......	......	.47	......	......	......	1.31	......	......	......
449	175	Traumatism by other crushing	5.71	.23	.34	......	8.53	.17	.25	......	18.53	.34	.11	......	......	......	......	......
450	176	Injuries by animals	15.97	.14	.06	......	5.07	......	......	......	4.78	......	......	......	......	......	......	......
452	178	Effects of excessive cold	.09	......	......	......	......	......	......	......	......	......	......	......	3.93	......	......	......
453	179	Effects of heat	.88	......	......	......	3.38	......	......	......	1.28	......	......	......	......	......	......	......
455	181	Effects of electricity	.02	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
456-458	182-4	Homicides, all	.08	......	.27	......	.08	......	.17	......	.12	......	.11	......	......	......	......	......
460	186	Other external violence	54.38	.17	.14	......	43.18	.08	......	......	50.16	......	.11	......	47.19	......	......	......
462-466	......	Killed or wounded in action	.28	.02	.17	......	......	......	......	......	......	......	......	......	......	......	......	......
462	......	By bullet	.28	.02	.17	......	......	......	......	......	......	......	......	......	......	......	......	......
		DISEASES AND INJURIES GROUPED.																
		General diseases	195.59	3.53	1.11	9.44	436.62	5.64	1.09	13.72	165.77	2.36	.90	7.87	69.47	1.31	......	1.04
	1-19	Epidemic diseases	86.56	.20	.43	2.13	220.04	.08	.25	4.48	46.55	......	.23	2.17	11.80	......	......	.17
	20-59	Other general diseases	109.03	3.33	.68	7.31	216.58	5.55	.84	9.24	119.23	2.36	.68	5.70	57.67	1.31	......	.88
		Diseases of the nervous system and organs of special sense	27.10	4.42	.28	2.26	47.06	10.93	.08	1.70	25.21	4.61	.34	1.35	27.52	7.86	1.31	.75
	60-74	Of the nervous system	12.99	3.91	.28	1.68	17.74	10.51	.08	1.06	11.67	4.50	.34	.78	22.28	7.86	1.31	.68
	75	Of the eye and its annexa	9.01	.31	......	.36	15.21	.08	......	.30	8.87	......	......	.32	2.62	......	......	.04
	76	Of the ear and its annexa	5.10	.20	......	.22	14.11	.34	......	.34	4.67	.11	......	.25	2.62	......	......	.03
	77-85	Diseases of the circulatory system	17.48	.57	.42	.93	22.90	.93	.08	.97	14.23	.90	.45	.67	1.31	......	......	.02
	86-98	Diseases of the respiratory system	63.30	.31	.56	1.53	51.97	.50	......	1.37	44.56	.90	.23	1.01	55.05	......	......	1.11
	99-118	Diseases of the digestive system	165.03	.59	.37	3.39	200.02	.67	.08	4.13	104.29	.23	.23	2.67	87.81	1.31	......	1.53
	119-127	Diseases of the genito-urinary system	9.45	.68	.19	.54	11.07	.50	.17	.45	13.77	.34	.11	.72	3.93	......	......	.10
	142-145	Diseases of the skin and cellular tissue	53.79	.09	.03	1.29	62.87	......	......	1.55	49.00	......	......	1.13	14.42	......	......	.24
	146-149	Diseases of the organs of locomotion	25.75	1.72	.02	1.29	27.04	2.86	......	1.19	17.97	.45	......	.84	30.14	2.62	......	1.13
	150	Malformations, etc	3.55	.02	......	.10	5.49	......	......	.21	3.50	......	......	.09	5.24	......	......	.20
	154	Diseases, results of old age	.03	......	......	.00	......	......	......	......	......	......	......	......	......	......	......	......
	189	Ill-defined diseases	3.40	......	.02	.10	6.00	......	......	.14	2.57	......	......	.06	2.62	......	......	.02
		Total for disease	564.49	11.93	2.99	20.87	871.05	22.04	1.51	25.42	440.85	9.79	2.25	16.39	297.51	11.80	1.31	6.13
	155-186	External causes	139.52	1.67	2.41	4.87	119.40	1.18	1.35	3.73	128.09	1.13	.79	4.04	89.12	......	1.31	2.78
		Total for disease and external causes	704.01	13.60	5.40	25.74	990.45	23.22	2.86	29.15	568.94	10.92	3.01	20.44	386.63	11.80	2.62	8.91

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[1] Noneffectiveness for individual external causes not tabulated.

TABLE NO. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, expressed in ratios per 1,000 of mean strength, for American troops (enlisted men) on duty at home stations, placed in comparison with the same data for those serving at distant stations, year 1915*—Continued.

Serial Nos.	International classification.	Causes of admission to sick report.	Panama.				China.				Transports.				Army.			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
1	1	Typhoid fever													0.08			0.01
2	1a	Paratyphoid fever													.06			.01
7-11	4	Malaria	87.57			2.32	21.72			0.40	12.20			0.28	22.66		0.02	.48
7		Estivo-autumnal fever	48.59			1.41	.75			.04					5.74		.02	.15
8		Malarial cachexia												.04	.09			.01
9		Quartan malarial fever													.16			.00
10		Tertian malarial fever	31.99			.72	18.73			.33	12.20			.24	15.24			.30
11		Undetermined malarial fever	6.99			.19	2.25			.03					1.44			.03
12	5	Smallpox and varioloid									.76			.00	.04			.00
13	5b	Vaccinia	.35			.00					.76			.00	3.98			.05
14	6	Measles	.87			.04	.75			.06	20.58			.68	6.79	0.08	.23	.42
15	7	Scarlet fever									.76			.06	.54		.01	.05
17	9	Diphtheria													.65		.01	.03
18	10	Influenza	47.37			.76	26.22			.35	6.10			.08	34.27		.04	.46
20	13	Cholera nostras													.01			.00
21-23	14	Dysentery	1.05			.08	1.50			.29	3.05			.59	1.96	.05	.02	.16
21		Bacillary	.17			.01									.18			.01
22		Entamœbic	.87			.07	1.50			.29	2.29			.57	1.48	.05	.02	.13
23		Unclassified									.76			.02	.30			.01
27	18	Erysipelas	.17			.00									.25	.01	.01	.01
29	19b	Dengue	3.67			.09					2.29			.14	17.47			.26
31	19d	German measles	.35			.01	.75			.03					.80			.04
34	19g	Mumps	7.17			.20	5.24			.41	80.79			1.65	10.27			.48
37	20	Purulent infection and septicemia													.08		.07	.00
42-46	25	Mycoses													.02			.00
49-57	28-34	Tuberculosis, all	6.12	1.69	0.34	.36	5.24	1.50	1.50	.73	5.34			6.00	3.52	1.79	.33	1.80
49-51	28	Tuberculosis of lungs	5.07	1.35		.21	2.25	1.50	.75	.44	5.34			5.87	3.20	1.69	.24	1.73
52	29	Miliary tuberculosis, acute	.17		.17	.03	.75		.75	.03					.04		.04	.01
53-57	30 34	Tuberculosis of other organs	.87	.34	.17	.11	2.25			.25				.14	.26	.10	.04	.06
59-74	37-38	Venereal diseases, all	136.51	.68		5.21	504.12	.75		14.01	138.72			2.92	107.71	.82	.06	4.78
59 64	37	Syphilis	15.91	.17		.88	50.94	.75		2.62	9.91			1.48	21.36	.50	.04	1.34
65-67	38a	Soft chancre	52.44			2.01	214.23			4.80	31.25			.06	23.44	.02		.87
68-74	38b	Gonococcus infection	68.17	.51		2.32	238.95			6.59	97.56			1.38	62.91	.31	.02	2.56
75-79	39-45	Cancer and other malignant tumors	.35			.03									.24	.05	.10	.05
80	46	Benign tumors	1.75			.02	1.50			.09					1.28		.01	.03

87-88	50	Diabetes		.17		.02					.76		0.76	.00	.15	.02	.04	.02
89	51	Exophthalmic goitre	.17			.04	.75	.75		.19				.29	.26	.11		.07
97-100	56	Alcoholism and results	15.73			.20	33.71			.38	3.81			.45	13.87	.25	.06	.21
101-102	57-58	Chronic occupational poisoning													.04			.00
103-104	59	Other chronic poisoning, including drug habit	.87			.01	1.50	.75		.16				.34	.47	.10		.04
107	61	Simple meningitis			.17									.09	.02	.02	.01	.01
108	61a	Epidemic cerebrospinal meningitis	.17			.02					.76			.03	.28	.07	.11	.04
109	62	Locomotor ataxia												.06	.13	.03		.03
110-115	63	Other diseases of spinal cord					.75			.24				.10	.10	.05	.01	.03
116	64	Cerebral hemorrhage, apoplexy													.09		.07	.00
117-119	66	Paralysis without specified cause	.70			.04	.75			.06				.06	.27	.04		.03
120-126	67-68	Mental alienation	3.85	2.88		.77	3.00	1.50		.41	3.81			6.34	3.82	3.30	.05	.90
127	69	Epilepsy	1.22	.68		.07	3.75	.75		.11				1.19	1.22	.69		.16
129-133	73	Neuralgia and neuritis	4.89			.16	5.24	.75		.36	5.34			.57	5.17	.24		.25
138-141	75a	Follicular conjunctivitis	4.89			.10	5.99			.11	2.29			.08	4.13	.02		.09
142	75b	Trachoma	.35			.02	.75	.75		.24				.05	.16	.01		.02
166	77	Pericarditis									.76			.01	.05			.00
167	78	Acute endocarditis	.17		.17	.01								.06	.10	.02	.03	.01
169-174	79	Organic heart disease	1.05	.51		.19					1.52		.76	.86	1.13	.50	.23	.17
175	80	Angina pectoris													.11	.01	.02	.00
176-177	81	Diseases of the arteries—atheroma, aneurism, etc					.75	.75		.01				.11	.15	.04	.06	.03
178-179	82	Embolism and thrombosis	.17	.17		.07									.03	.02	.01	.01
181	83b	Hemorrhoids	8.22			.25	4.49			.08	1.52			.06	5.86			.17
183	83d	Varicose veins	1.40			.05	.75			.04					.68	.02		.04
184	83e	Varicocele	2.80	.17		.16	4.49			.23					2.63	.02		.14
185-187	84	Diseases of the lymphatic system	13.98	.34		1.06	29.96			1.20	3.81			.11	6.72	.02		.36
193-199	86	Diseases of the nasal fossæ	14.16			.26	82.40			.89	17.53			.24	15.18	.02		.24
200-202	87	Diseases of the larynx	1.40	.17		.08	6.74			.08					2.52	.01		.05
203-204	88	Diseases of the thyroid body	.70	.51		.13								.03	.26	.07		.04
205-206	89-90	Bronchitis	29.89			.64	26.22			.53	25.91			.55	35.17	.05	.01	.64
207	91	Broncho-pneumonia									.76			.04	.57	.01	.06	.04
208	92	Pneumonia	.87			.07	4.49		.75	.28	3.81			.13	2.41		.31	.18
209-215	93	Pleurisy	2.97			.06	4.49			.24	3.81			.55	2.78	.07	.03	.20
216-217	94	Pulmonary congestion and pulmonary apoplexy													.01			
219	96	Asthma	.52			.02								.29	.84	.15		.06
220	97	Pulmonary emphysema													.02			.00
221	98a	Hæmoptysis													.09			.01
222	98b	Hay fever					2.25			.03					.01			.00
224-227	99a	Diseases of the teeth and gums	4.37			.07	15.73			.20				.02	5.30	.01		.10
228-231	99b	Other diseases of the mouth and annexa	.87			.04	2.25			.04					.90			.02
232-236	100	Diseases of the pharynx	42.13			.77	132.58			1.69	55.64			.60	65.10	.01	.01	.93
238	102	Ulcer of stomach	.17			.00								.12	.25	.05	.01	.04
239-244	103	Other diseases of stomach (cancer excepted)	4.89			.05	21.72			.38	15.24			.31	12.03	.07	.02	.22
245-253	105	Diarrhea and enteritis	16.78			.23	47.94			.46	43.44			.58	31.51	.01	.04	.41
254	106	Ankylostomiasis	.17			.01	.75			.11					.44	.01		.03
255-259	107	Intestinal parasites	.85			.01	5.99			.13	.76			.00	1.03			.02

TABLE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, expressed in ratios per 1,000 of mean strength, for American troops (enlisted men) on duty at home stations, placed in comparison with the same data for those serving at distant stations, year 1915*—Continued.

Serial Nos.	International classification.	Causes of admission to sick report.	Panama.				China.				Transports.				Army.			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
260	108	Appendicitis	16.08	0.34	0.17	1.08	9.74	......	......	0.31	3.05	......	......	0.21	8.74	0.04	0.13	0.63
261-263	109	Hernia	5.59	......	......	.46	6.74	......	......	.51	.76	......	0.76	.25	3.79	.20	.03	.38
264-267	110a	Diseases of the anus and fecal fistula	.52	......	......	.03	.75	......	......	.07	......	......	......	......	.81	......	......	.05
268-272	110b	Other diseases of the intestines	45.10	.17	......	.53	108.61	......	......	1.06	10.67	......	......	.60	29.72	.06	......	.39
275	113	Cirrhosis of liver	......	......	......	......	......	......	......	......	......	......	......	......	.05	.01	.01	.01
276	114	Biliary calculi	.17	......	......	.00	......	......	......	......	.76	......	......	.06	.10	.01	......	.01
277-281	115	Other diseases of liver and gall bladder	4.20	......	......	.19	8.24	......	......	.35	3.81	......	......	.21	4.17	.02	.01	.19
283-284	117	Simple peritonitis	......	......	......	......	......	......	......	......	......	......	......	......	.01	......	.02	.00
288	119	Acute nephritis	.17	......	.17	.01	......	......	......	......	2.29	......	......	.09	.31	......	.06	.02
289-291	120	Bright's disease	.70	......	......	.05	1.50	......	......	.09	......	......	......	.28	.58	.13	.10	.10
293-299	122	Other diseases of the kidney and annexa	.17	......	......	.02	......	......	......	......	......	......	......	.06	.29	.01	......	.04
303-306	124	Diseases of the bladder	1.40	......	......	.03	2.25	......	......	.13	.76	......	......	.45	2.10	.35	......	.14
124	124b	Enuresis	.17	......	......	.00	2.25	......	......	.13	......	......	......	.45	1.17	.35	......	.11
307-309	125	Diseases of the urethra urinary abscess, etc	.87	......	......	.02	5.99	......	......	.11	......	......	......	.00	1.53	.01	......	.04
310-312	126	Diseases of the prostate	.17	......	......	.01	......	......	......	......	......	......	......	.06	.16	.01	......	.02
313-319	127	Diseases of the male genital organs (nonvenereal)	3.50	......	......	.11	3.75	......	......	.10	3.05	......	......	.06	4.32	.01	......	.13
322-323	143	Furuncle and carbuncle	27.62	......	......	.42	17.98	......	......	.39	2.29	......	......	.02	17.42	......	......	.30
324-325	144	Acute abscess and cellulitis	8.74	......	......	.29	22.47	......	......	.51	6.86	......	......	.26	13.44	.01	.02	.34
352-357	146	Diseases of the bones	1.75	......	......	.13	......	......	......	......	2.29	......	......	.09	2.53	.06	.01	.16
358-360	147	Diseases of the joints	4.54	.17	......	.25	14.98	......	......	.50	......	......	......	.43	4.10	.24	......	.33
367	149g	Flat foot	5.42	2.03	......	.43	4.49	......	......	.13	......	......	......	3.15	2.71	1.25	......	.35
372	150	Congenital malformations	5.94	......	......	.13	5.24	......	......	.14	.76	......	......	.01	3.94	.01	......	.12
373-374	154	Senility	......	......	......	......	......	......	......	......	......	......	......	......	.02	......	......	.00
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	.35	......	......	.01	8.99	......	......	.22	......	......	......	......	1.99	......	......	.04
379	189Ba	Under observation, undiagnosed and unknown	1.22	......	......	.01	.75	......	......	.01	......	......	......	.10	.85	......	.01	.04
380	189Bb	Malingering	.70	......	......	.01	......	......	......	......	......	......	......	......	.38	......	......	.01
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]																
426-434	155-163	**Suicides, all**	......	......	.34	......	......	......	0.75	......	......	......	......	......	.14	......	.53	......

		excepted)	.52	......	......	......	......	......	......	......	......	......	......	......	.57	......	.05	......
439	167	Burns (conflagrations excepted)	4.89	......	......	......	1.50	......	......	......	.76	......	......	......	4.12	.03	.01	......
440	168	Absorption of deleterious gases	......	......	......	......	......	......	......	......	......	......	......	......	.02	......	......	......
441	168a	Suffocation, strangulation	......	......	......	......	......	......	......	......	......	......	......	......	.03	......	.03	......
442	169	Drowning, accidental	......	......	.51	......	......	......	.75	......	......	......	.76	......	......	......	.36	......
443	170	Traumatism by firearms (other than specified)	2.62	......	......	......	2.25	......	......	......	......	......	......	......	2.95	.29	.13	......
444	170a	Shot by sentry or guard	.17	......	......	......	......	......	......	......	......	......	......	......	.05	......	.02	......
445	171	Traumatism by cutting or piercing instruments	33.56	......	......	......	8.24	......	......	......	3.81	......	......	......	10.57	.06	.01	......
446	172	Traumatism by fall	33.56	......	......	......	32.21	......	......	......	9.91	......	......	......	36.16	.27	.08	......
448	174	Traumatism by machines	.35	......	......	......	.75	......	......	......	1.52	......	......	......	.81	.02	......	......
449	175	Traumatism by other crushing	6.64	.51	......	......	.75	......	......	......	.76	......	......	......	6.66	.25	.27	......
450	176	Injuries by animals	4.72	......	......	......	3.00	......	......	......	......	......	......	......	12.33	.10	.04	......
452	178	Effects of excessive cold	......	......	......	......	.75	......	......	......	......	......	......	......	.11	......	......	......
453	179	Effects of heat	3.15	......	......	......	.75	......	......	......	.76	......	......	......	1.36	......	......	......
455	181	Effects of electricity	......	......	.17	......	......	......	......	......	......	......	......	......	.01	......	.01	......
456–458	182–4	Homicides, all	......	......	.17	......	......	......	......	......	......	......	......	......	.07	......	.22	......
460	186	Other external violence	54.54	.34	......	......	60.67	......	......	......	6.86	......	......	......	51.92	.15	.11	......
462–466	......	Killed or wounded in action	......	......	......	......	......	......	......	......	......	......	......	......	.19	.01	.12	......
462	......	By bullet	......	......	......	......	......	......	......	......	......	......	......	......	.19	.01	.12	......
		DISEASES AND INJURIES GROUPED.																
		General diseases	315.33	2.54	.34	9.67	617.98	3.75	1.50	17.52	279.72	......	.76	14.09	236.98	3.56	1.03	9.97
	1–19	Epidemic diseases	148.93	......	......	3.52	59.18	......	......	1.66	127.29	......	......	3.47	103.21	.15	.35	2.51
	20–59	Other general diseases	166.40	2.54	.34	6.15	558.80	3.75	1.50	15.86	152.44	......	.76	10.62	133.76	3.41	.69	7.45
		Diseases of the nervous system and organs of special sense	44.57	4.40	.17	1.91	41.95	3.75	......	1.97	16.77	......	......	9.98	30.60	5.20	.25	2.17
	60–74	Of the nervous system	16.08	3.72	.17	1.28	22.47	3.00	......	1.34	9.91	......	......	9.29	13.83	4.74	.25	1.59
	75	Of the eye and its annexa	15.56	.34	......	.37	10.49	.75	......	.40	3.81	......	......	.30	10.08	.25	......	.34
	76	Of the ear and its annexa	12.93	.34	......	.26	8.99	......	......	.23	3.05	......	......	.39	6.69	.21	......	.24
	77–85	Diseases of the circulatory system	28.67	1.18	.17	1.85	41.95	.75	......	1.64	8.38	......	.76	1.30	18.65	.68	.36	.98
	86–98	Diseases of the respiratory system	50.69	.68	.17	1.25	126.59	......	.75	2.06	51.83	......	......	1.88	60.04	.40	.42	1.45
	99–118	Diseases of the digestive system	142.11	.85	.17	3.54	361.05	......	.75	5.32	134.15	......	.76	2.97	164.22	.57	.32	3.43
	119–127	Diseases of the genito-urinary system	8.04	......	.17	.31	13.48	......	......	.43	6.86	......	......	1.01	9.94	.56	.17	.53
	142–145	Diseases of the skin and cellular tissue	97.36	......	......	2.25	72.66	.75	......	1.62	19.82	......	......	.68	56.65	.07	.02	1.36
	146–149	Diseases of the organs of locomotion	24.12	2.37	......	1.07	56.93	......	......	1.31	3.81	......	......	4.17	25.27	1.74	.01	1.26
	150	Malformations, etc	5.94	......	......	.13	5.24	......	......	.14	.76	......	......	.01	3.94	.01	......	.12
	154	Diseases, results of old age	......	......	......	......	......	......	......	......	......	......	......	......	.02	......	......	.00
	189	Ill-defined diseases	2.27	......	......	.04	11.98	......	......	.32	25.15	......	......	.39	4.01	......	.01	.10
		Total for disease	719.10	12.01	1.18	22.01	1,349.81	8.99	3.00	32.32	547.25	......	2.29	36.48	610.32	12.79	2.60	21.37
	155–186	External causes	151.90	1.02	1.18	3.98	112.36	.75	1.50	2.68	25.15	......	.76	2.09	134.27	1.47	2.01	4.51
		Total for disease and external causes	871.00	13.03	2.37	26.00	1,462.17	9.74	4.49	35.00	572.41	......	3.05	38.57	744.59	14.26	4.60	25.88

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[1] Noneffectiveness for individual external causes not tabulated.

TABLE NO. 79.—*Showing the most important diseases, by departments, in the United States (continental, excluding Alaska), 1915—officers and enlisted men.*

ADMISSION, ABSOLUTE NUMBERS.

Diseases.	Eastern Department.	Central Department.	Southern Department.	Western Department.	Recruit depots.	Independent stations.	General hospitals.	Second division, Texas City.	Troops on the Mexican border.	Total.
1. Alcoholismus, acutus, including delirium tremens	328	25	58	79	65	23	31	82	86	777
2. Appendicitis, typhlitis, perityphlitis	189	22	29	59	32	7	22	56	90	506
3. Bronchitis acuta	655	85	158	279	461	67	12	198	499	2,414
4. Cholera Asiatica										
5. Cholera nostras	1									1
6. Diphtheria	2		13	31	4	2	2	3	3	60
7. Dysenteria	15	8	9	12	11		9	18	25	107
8. Erysipelas	7		3	2	1			2	4	19
9. Febris intermittens (malaria)	200	22	62	31	74	12	1	100	116	618
10. Febris recurrens										
11. Fractura ossium	238	59	114	122	77	15	7	86	158	876
12. Gonorrhea	839	134	315	435	343	49	25	433	654	3,227
13. Hernia	67	12	15	39	50	5	8	26	37	259
14. Influenza	734	233	120	385	248	120	44	72	963	2,919
15. Insolatio (Hitzschlag coup de chaleur)			1					2	4	7
16. Luxationes articulorum	61	14	14	14	9	4		21	45	182
17. Meningitis, cerebrospinalis, epidemica	7		2		8			4	2	23
18. Morbilli	36	9	20	35	263			75	118	556
19. Parotitis epidemica	173	14	35	36	125	5	1	66	59	514
20. Pleuritis	52	6	13	13	18	8	4	23	42	179
21. Pneumonia crouposa sive lobaris	50	7	10	8	52	7	1	7	37	179
22. Rheumatismus articulorum	111	9	17	38	81	9	16	31	126	438
23. Scarlatina	1	5	4	1	23	1	3	1	10	49
24. Scorbutus										
25. Syphilis	308	51	134	115	123	20	40	138	175	1,104
26. Trachoma		1		4				1	1	7
27. Tuberculosis pulmonum	45	8	16	22	15	2	8	16	32	164
28. Tuberculosis ceterorum organorum	9			1	3	1	1			15
29. Typhus abdominalis	2		1						1	4
30. Typhus exanthematicus										
31. Ulcus molle	197	14	139	48	79	6	3	216	307	1,009
32. Variola			1	1				1		3
33. Morbi auris	106	18	17	23	62	5	9	35	61	336
34. Morbi cordis	25	8	2	10	4	3	5	7	17	81
35. Morbi cutis	449	47	98	131	165	16	12	117	256	1,291
36. Morbi mentis	45	18	20	24	36	6	20	10	21	200
37. Morbi oculi	163	33	39	80	48	12	9	75	151	610
38. Morbi systemat. urin, et sexual. (excluding venerie et syphilis)	187	42	56	69	96	20	21	55	106	652

Diseases.	Eastern Department.	Central Department.	Southern Department.	Western Department.	Recruit depots.	Independent stations.	Second division, Texas City.	Troops on the Mexican border.	Total.
1. Alcoholismus, acutus, including delirium tremens	16.32	8.32	10.94	9.59	12.25	10.36	11.35	5.80	11.63
2. Appendicitis, typhilitis, perityphlitis	9.40	7.32	5.47	7.16	6.03	3.15	7.75	6.07	7.58
3. Bronchitis acuta	32.58	28.28	29.79	33.86	86.85	30.17	27.41	33.64	36.14
4. Cholera Asiatica									
5. Cholera nostras	.05								.01
6. Diphtheria	.10		2.45	3.76	.75	.90	.42	.20	.90
7. Dysenteria	.75	2.66	1.70	1.46	2.07		2.49	1.69	1.60
8. Erysipelas	.35		.57	.24	.19		.28	.27	.28
9. Febris intermittens (malaria)	9.95	7.32	11.69	3.76	13.94	5.40	13.85	7.82	9.25
10. Febris recurrens									
11. Fractura ossium	11.84	19.63	21.50	14.81	14.50	6.75	11.91	10.65	13.11
12. Gonorrhea	41.74	44.57	59.40	52.80	64.62	22.06	59.95	44.08	48.32
13. Hernia	3.33	3.99	2.83	4.73	9.42	2.25	3.60	2.49	3.88
14. Influenza	36.51	77.51	22.63	46.73	46.72	54.03	9.97	64.92	43.71
15. Insolatio (Hitzschlag coup de chaleur)			.19				.28	.27	.10
16. Luxationes articulorum	3.03	4.66	2.64	1.70	1.70	1.80	2.91	3.03	2.72
17. Meningitis cerebrospinalis, epidemica	.35		.38		1.51		.55	.13	.34
18. Morbilli	1.79	2.99	3.77	4.25	49.55		10.38	7.95	8.33
19. Parotitis epidemica	8.61	4.66	6.60	4.37	23.55	2.25	9.14	3.98	7.70
20. Pleuritis	2.59	2.00	2.45	1.58	3.39	3.60	3.18	2.83	2.68
21. Pneumonia crouposa sive lobaris	2.49	2.33	1.88	.97	9.80	3.15	.97	2.49	2.68
22. Rheumatismus articulorum	5.52	2.99	3.20	4.61	15.26	4.05	4.29	8.49	6.56
23. Scarlatina	.05	1.66	.75	.12	4.33	.45	.14	.67	.73
24. Scorbutus									
25. Syphilis	15.32	16.97	25.27	13.96	23.17	9.00	19.11	11.80	16.53
26. Trachoma		.33		.48			.14	.07	.10
27. Tuberculosis pulmonum	2.24	2.66	3.02	2.67	2.83	.90	2.22	2.16	2.46
28. Tuberculosis ceterorum organorum	.45			.12	.57	.45			.22
29. Typhus abdominalis	.10		.19					.07	.06
30. Typhus exanthematicus									
31. Ulcus molle	9.80	4.66	26.21	5.83	14.88	2.70	29.91	20.69	15.11
32. Variola			.19	.12			.14		.04
33. Morbi auris	5.27	5.99	3.20	2.79	11.68	2.25	4.85	4.11	5.03
34. Morbi cordis	1.24	2.66	.38	1.21	.75	1.35	.97	1.15	1.21
35. Morbi cutis	22.34	15.64	18.48	15.90	31.08	7.20	16.20	17.26	19.33
36. Morbi mentis	2.24	5.99	3.77	2.91	6.78	2.70	1.38	1.42	3.00
37. Morbi oculi	8.11	10.98	7.35	9.71	9.04	5.40	10.38	10.18	9.13
38. Morbi systemat. urin, et sexual. (excluding venerie et syphilis)	9.30	13.97	10.56	8.37	18.09	9.00	7.62	7.15	9.76

TABLE No. 80.—*Comparative figures, enlisted American troops, Army, 1911–1915.*

ABSOLUTE NUMBERS.

Army.	Mean strength.	Admissions to sick report.		Discharges on certificate of disability.		Deaths.		Total losses.		Total days.				Constantly noneffective.			
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										Total.	In hospital.	Total.	In hospital.	Total.	In hospital.	Total.	In hospital.
1915	93,262	69,442	45,210	1,351	1,110	436	234	1,787	1,344	880,823	763,983	555,810	493,402	2,413.21	2,093.10	1,522.77	1,351.79
1914	87,228	58,079	35,502	1,145	921	392	195	1,537	1,116	764,883	684,082	467,890	428,246	2,095.57	1,874.20	1,281.89	1,173.28
1913	80,766	54,257	33,459	1,082	865	397	202	1,479	1,067	717,149	659,086	447,061	420,217	1,964.79	1,805.72	1,224.82	1,151.28
1912	78,267	64,487	39,952	1,069	844	381	169	1,450	1,013	862,221	790,213	494,236	459,521	2,355.80	2,159.05	1,350.37	1,255.52
1911	72,748	68,073	39,364	1,011	799	348	181	1,359	980	883,646	798,382	465,853	426,534	2,420.95	2,187.35	1,276.31	1,195.98

PROPORTIONATE NUMBERS.

Army.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, vaccinia, and alcoholism.	
		From all causes.	Excluding injuries, venereal diseases, vaccinia, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, vaccinia, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, vaccinia, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, vaccinia, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, vaccinia, and alcoholism.					
										Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
1915	93,262	744.59	484.76	14.26	11.72	4.60	2.47	18.86	14.19	25.88	22.44	16.33	14.49	9.44	12.68	5.96	12.29
1914	87,228	665.83	407.00	12.99	10.45	4.45	2.21	17.44	13.45	24.02	21.49	14.70	13.45	8.77	13.17	5.36	13.18
1913	80,766	671.78	414.27	13.24	10.59	4.86	2.47	18.10	13.06	24.33	22.36	15.17	14.26	8.88	13.22	5.53	13.36
1912	78,267	823.94	510.46	13.43	10.60	4.79	2.12	18.22	12.72	30.10	27.58	17.25	16.04	11.02	13.37	6.31	12.37
1911	72,748	935.74	541.10	13.85	10.94	4.77	2.48	18.62	13.42	33.28	30.07	17.54	16.06	12.15	12.98	6.40	11.83

BLE No. 81.—*Ratios per 1,000 of mean strength for "total admissions" and for "case dmissions" for enlisted American troops in the Army (as a whole), in the United States (continental), excluding Alaska, and in the Philippine Islands, for the years 904 to 1911, for disease, external causes, and all causes.*

ear.	Enlisted American troops.	Army.		United States (continental), excluding Alaska.		Philippine Islands.	
		Total admissions.	Case admissions.	Total admissions.	Case admissions.	Total admissions.	Case admissions.
04	Diseases	1,114	1,002	1,049	951	1,473	1,293
	External causes	241	228	257	242	215	204
	All causes	1,355	1,230	1,306	1,193	1,688	1,497
05	Diseases	1,058	975	998	921	1,387	1,260
	External causes	238	226	252	239	213	207
	All causes	1,296	1,201	1,250	1,160	1,600	1,467
06	Diseases	1,053	987	944	879	1,494	1,409
	External causes	224	216	236	226	206	202
	All causes	1,277	1,203	1,180	1,105	1,700	1,611
07	Diseases	1,005	926	956	885	1,260	1,153
	External causes	213	206	216	208	223	216
	All causes	1,218	1,132	1,172	1,093	1,483	1,369
08	Diseases	963	891	922	860	1,208	1,097
	External causes	225	217	227	219	232	222
	All causes	1,188	1,108	1,149	1,079	1,440	1,319
09	Diseases	866	791	822	750	1,156	1,062
	External causes	197	190	202	195	192	185
	All causes	1,063	981	1,024	945	1,348	1,247
0	Diseases	766	707	715	662	1,048	956
	External causes	184	178	184	178	195	188
	All causes	950	885	899	840	1,243	1,144
1	Diseases	770	718	726	680	1,028	947
	External causes	166	161	162	157	190	185
	All causes	936	879	888	837	1,218	1,132

TERNATIONAL MILITARY MEDICAL STATISTICS FOR THE YEAR 1915.

hese tables are those agreed upon at the International Commission
the Unification of the Medical Statistics of Armies, held at Buda-
t in 1894, at Madrid in 1903, and modified by the last meeting held
Berlin in 1907. They are calculated for the United States Army
per (white and colored) and include enlisted men only. Disposi-
s include cases remaining from last year. Deaths include suicides
accidents. Days lost include those lost this year by cases remaining
n last year.

able I shows in absolute numbers, by divisions, the mean strength
he command, the admissions to quarters, to hospital, and total
issions; the disposition of the sick, total, and the number returned
luty, died, and otherwise disposed of, and the total number of days'
ness.

Table II gives the same data in ratios per 1,000, and also shows days lost per soldier and per admission.

Table III shows, by arms of service, the mean strength, the t admissions, and those admitted to hospital only, the total dispositio and the number of those returned to duty, and the number that di

Table IV gives the same data as Table III by months.

Table V shows for each of the larger garrisons the mean streng admissions to hospital, total admissions, and the deaths.

Table VI shows for each of the 38 diseases or disease groups agr upon by the international commission, the number remaining un treatment at the commencement and close of the current year, admissions and dispositions for the year, the total sick days, and average number of days per case.

Table VII shows the admissions, by arms of service, for the disea and disease groups referred to in Table VI.

Table VIII shows the same data as Table VII by months.

Table IX shows deaths by rank, by length of service, and by a

Table X shows the same data as Table IX for discharges for physi disability.

INTERNATIONAL TABLE I.—*Movement of sick by Army corps (departments).*

ABSOLUTE NUMBERS (ENLISTED MEN).

	Mean strength.	Admitted sick.			Sick disposed of.			
		Total.	To hospital.	To quarters.	Returned to duty recovered.	Died.	Otherwise disposed of.	Total.
United States (excluding Alaska):								
Eastern Department	19,145	12,527	11,086	1,441	11,495	74	204	11,773
Central Department	2,748	2,224	1,846	378	2,118	5	58	2,181
Southern Department (excluding Cavalry division)	5,073	3,531	3,246	185	4,839	48	307	5,194
Western Department	7,898	4,395	3,577	818	3,119	20	58	3,197
Second tactical division	6,895	4,815	2,902	1,913	4,341	45	90	4,476
Mexican border (field)	14,239	10,273	3,349	6,924	8,103	52	66	8,221
Independent stations	2 016	1,025	555	470	952	10	18	980
Recruit depots	5,202	5,567	5,389	178	5,160	49	201	5,410
General hospitals	509	506	484	22	1,998	46	454	2,498
Total	63,725	44,863	32,534	12,329	42,125	349	1,456	43,930
Alaska [1]	763	295	254	41	259	2	10	271
Canal Zone, Panama [1]	5,721	4,983	2,755	2,228	4,592	14	115	4,721
Hawaiian Department	8,572	4,877	4,497	380	4,698	27	145	4,870
China [1]	1,335	1,952	1,403	549	1,711	6	31	1,748
Philippine Department	11,834	11,721	10,910	811	10,980	34	524	11,538
Army transports	1,312	751	615	136	456	4	7	467
Army	93,262	69,442	52,968	16,474	64,821	436	2,288	67,545

[1] Separated from the department to which they belong for purposes of comparison.

INTERNATIONAL TABLE II.—*Movement of sick, by Army corps (departments).*

PROPORTIONATE NUMBERS (ENLISTED MEN).

	In 1,000 of mean strength.			In 1,000 disposed of.			Days lost.	
	Total admissions.	Admissions to hospital.	Deaths.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Per soldier.	Per admission.
ed States (excluding Alaska):								
astern Department	654.32	579.05	3.87	976.39	6.28	17.33	6.00	9.18
entral Department	809.32	671.76	1.82	971.11	2.29	26.59	7.99	9.87
outhern Department (excluding troops on Mexican border)	696.04	639.86	9.46	931.65	9.24	59.11	18.04	25.92
Western Department	556.47	452.90	2.53	975.60	6.26	18.14	4.10	7.36
econd tactical division	698.33	420.88	6.53	969.84	10.05	20.11	7.30	10.45
Mexican border	721.47	235.20	3.65	985.65	6.33	8.03	4.71	6.53
ndependent stations	508.43	275.30	4.96	971.43	10.20	18.37	3.94	7.74
Recruit depots	1,070.17	1,035.95	9.42	953.79	9.06	37.15	11.61	10.85
General hospitals	994.11	....	....	799.84	18.41	181.75	....	....
Total	704.01	510.54	5.40	958.91	7.94	33.14	9.39	13.34
ka	386.63	332.90	2.62	955.72	7.38	36.90	3.25	8.41
l Zone, Panama	871.00	481.56	2.37	972.68	2.97	24.36	9.49	10.89
aiian Department	568.94	524.61	3.04	964.68	5.54	29.77	7.46	13.11
a	1,462.17	1,050.94	4.49	978.83	3.43	17.73	12.77	8.74
ppine Department	990.45	921.93	2.86	951.64	2.95	45.42	10.64	10.74
y transports	572.41	468.75	3.05	976.45	8.57	14.99	14.08	24.60
Army	744.59	567.95	4.60	959.67	6.46	33.87	9.44	12.68

ERNATIONAL TABLE III.—*Movement of sick, by arms of service—Army—Enlisted men, American troops.*

rms of ervice.	Mean strength.	Absolute numbers.					Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 of sick disposed of.	
		Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospitals.	Deaths.	Fit for duty (recovered).	Deaths.
try	34,090	26,620	17,503	25,444	24,387	147	780.87	513.44	4.24	958.46	5.78
lry	14,408	11,435	8,864	11,305	10,911	73	793.66	615.21	4.99	965.15	6.46
Artillery	18,963	12,494	11,090	12,230	11,735	79	658.86	584.82	4.10	959.53	6.46
Artillery	5,509	5,313	4,041	5,184	5,007	21	964.42	733.53	3.76	965.86	4.05
neers	1,877	1,532	1,118	1,518	1,447	11	816.20	595.63	5.77	953.22	7.25
ance	725	380	346	372	359	8	524.14	477.24	10.85	965.00	21.51
l Corps	1,364	745	553	727	701	9	546.19	405.43	6.49	964.23	12.38
ital Corps	3,891	2,418	2,129	2,376	2,267	13	621.43	547.16	3.29	954.23	5.47
rs	12,435	8,505	7,324	8,389	8,007	75	683.96	588.98	5.94	954.46	8.94
Total	93,262	69,442	52,968	67,545	64,821	436	744.59	567.95	4.60	959.68	6.45

INTERNATIONAL TABLE IV.—*Movement of sick, by months (enlisted men).*

AMERICAN TROOPS AT HOME.

Month.	Mean. strength.	Absolute numbers.					Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 disposed	
		Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.	Fit for duty (recovered).	De
January	65,805	4,064	3,069	3,780	3,614	24	61.76	46.64	0.36	956.08	
February	66,868	4,346	3,308	4,165	4,002	35	64.99	49.47	.52	960.86	
March	65,989	4,760	3,540	4,545	4,368	34	72.13	53.65	.52	961.06	
April	64,948	4,038	2,878	4,120	3,930	28	62.17	44.31	.43	953.88	
May	63,583	3,406	2,425	3,572	3,427	18	53.57	38.14	.28	959.41	
June	63,216	3,144	2,188	3,165	3,025	23	49.73	34.61	.36	955.77	
July	62,574	3,448	2,379	3,362	3,240	23	55.10	38.02	.36	963.71	
August	60,875	3,231	2,338	3,179	3,047	44	53.08	38.41	.69	958.48	
September	62,411	3,356	2,444	3,224	3,080	25	53.77	39.16	.39	955.34	
October	61,750	3,289	2,320	3,266	3,118	34	53.26	37.57	.54	954.68	
November	62,726	3,620	2,650	3,353	3,196	27	57.71	42.25	.42	953.18	
December	63,951	4,161	2,995	4,199	4,078	34	65.07	46.83	.53	971.18	
Total.	63,725	44,863	32,534	43,930	42,125	349	704.01	510.54	5.40	958.91	

AMERICAN TROOPS IN THE PHILIPPINE ISLANDS.

January	11,519	1,002	964	919	883	2	86.98	83.68	0.17	960.83	
February	12,097	829	786	856	825	3	68.52	64.97	.24	963.79	
March	12,626	909	862	872	836	2	71.99	68.27	.16	958.72	
April	13,310	1,133	1,011	1,072	1,011	5	85.12	75.96	.39	943.10	
May	12,864	1,084	1,055	1,018	967	2	84.26	82.01	.15	949.90	
June	12,566	1,058	1,003	1,059	1,005	3	84.19	79.82	.23	949.01	
July	12,464	1,454	1,306	1,438	1,349	2	116.65	104.78	.16	938.11	
August	11,990	1,348	1,178	1,338	1,263	6	112.43	98.25	.49	943.95	
September	11,153	991	950	1,016	960	2	88.85	85.18	.18	944.88	
October	10,769	757	721	867	833	2	70.29	66.95	.19	960.78	
November	10,747	610	567	553	534	2	56.76	52.76	.20	965.64	
December	9,896	546	507	530	514	3	55.17	51.23	.30	969.81	
Total.	11,834	11,721	10,910	11,538	10,980	34	990.45	921.93	2.86	951.64	

ERNATIONAL TABLE V.—*Movement of sick in the larger garrisons, officers and enlisted men, year 1915.*

Garrison.	Mean strength.	Total admissions.		Admissions to hospital.		Deaths.	
		Absolute numbers.	Per 1,000 of mean strength.	Absolute numbers.	Per 1,000 of mean strength.	Absolute numbers.	Per 1,000 of mean strength.
son Barracks, Mo	1,413	1,153	815.99	1,136	803.96	21	14.86
Monroe, Va	1,352	994	735.21	899	664.94	4	2.96
Sam Houston, Tex	1,293	1,027	794.28	987	763.34	15	11.60
Slocum, N. Y	1,287	1,726	1,341.10	1,678	1,303.81	7	5.44
Sill, Okla	1,182	953	806.26	838	708.97	8	6.77
nbus Barracks, Ohio	1,166	1,312	1,125.21	1,295	1,110.63	16	13.72
Oglethorpe, Ga	1,098	896	816.03	753	685.80	3	2.73
Winfield Scott, Cal	1,098	363	330.60	250	227.69	4	3.64
dio of San Francisco, Cal	1,092	770	705.13	547	500.92	....	....
ouver Barracks, Wash	958	591	616.91	555	579.33	2	2.09
Huachuca, Ariz	875	285	325.71	245	280.00	10	11.43
McDowell, Cal	871	754	865.69	663	761.20	1	1.15
Ethan Allen, Vt	869	726	835.44	672	773.30	5	5.75
Point, N. Y	838	288	343.68	249	297.14	2	2.39
Bliss, Tex	823	655	795.87	630	765.49	14	17.01
Leavenworth, Kans	811	755	930.95	443	546.24	1	1.23
sburg Barracks, N. Y	766	527	687.99	442	577.02	3	3.92
Hancock, N. J	750	442	589.33	411	548.00	3	4.00
Myer, Va	694	611	880.40	545	785.30	1	1.44
H. G. Wright, N. Y	683	577	844.80	532	778.91	....	....
Terry, N. Y	681	456	669.60	350	513.95	2	2.94
son Barracks, N. Y	641	359	560.06	352	549.14	2	3.12
Barrancas, Fla	637	293	459.97	267	419.15	2	3.14
Worden, Wash	633	319	503.95	280	442.34	....	....
Hamilton, N. Y	629	245	389.51	218	346.58	3	4.77
Gibbon, Alaska	234	96	410.26	76	324.79	1	4.27
Wm. H. Seward, Alaska	214	96	448.60	85	397.20	....	....
Davis, Alaska	107	34	317.76	34	317.76	....	....
eld Barracks, Hawaii	5,349	3,146	588.15	2,899	541.97	13	2.43
Shafter, Hawaii	1,944	1,033	531.38	983	505.66	1	.51
Kamehameha, Hawaii	444	297	668.92	160	360.36	3	6.76
Ruger, Hawaii	287	134	466.90	109	379.79	....	....
De Russy, Hawaii	204	93	455.88	60	294.11	....	....
Mills, P. I	4,679	2,911	622.14	2,754	588.59	6	1.28
William McKinley, P. I	3,008	2,849	947.14	2,708	900.27	10	3.32
Stotsenburg, P. I	2,030	2,628	1,294.58	2,487	1,225.12	4	1.97
w Barracks, P. I	909	549	603.96	537	590.76	....	....
el de Espana, P. I	899	1,346	1,497.22	958	1,065.63	2	2.22
Barracks, P. I	836	610	729.67	565	675.84	2	2.39
McGrath, P. I	726	675	929.75	639	880.17	1	1.38
Keithley, P. I	646	317	490.71	301	465.94	1	1.55
John Hay, P. I	533	462	866.79	447	838.65	4	7.50
Eldridge, P. I	524	517	986.64	471	898.86	3	5.73
Barracks, P. I	477	198	415.09	188	394.13	3	6.29
ick Barracks, P. I	462	235	508.66	216	467.54	1	2.16
Overton, P. I	436	210	481.66	189	433.49	3	6.88
San Pedro, P. I	337	304	902.08	282	836.80	2	5.93
Gregg, P. I	314	280	891.72	259	824.84	1	3.18

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases, Army (American troops), enlisted men, 1915.*

	Absolute numbers.									Proportionate numbers.					Average days of treatment.
	Remaining at close 1914.	Admitted, 1915.	Total remaining and admitted.	Disposed of, 1915.				Remaining at close of 1915.	Total days sick in 1915.	Per 1,000 of mean strength.		Per 1,000 disposed of.			
				Fit for duty.	Died.	Otherwise.	Total.			Admissions.	Deaths.	Fit for duty.	Died.	Otherwise.	
1. Alkoholismus acutus, including delirium tremens	11	1,190	1,201	1,153	6	32	1,191	15	4,274	12.76	0.06	968.09	5.04	26.87	3.59
2. Appendicitis, typhilitis, and perityphilitis	44	815	859	775	12	30	817	41	21,405	8.74	.13	948.59	14.69	36.72	26.26
3. Bronchitis acuta	53	3,167	3,220	3,170	....	20	3,190	30	18,188	33.96	....	933.73	....	6.27	5.74
4. Cholera Asiatica	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
5. Cholera nostras	....	1	1	1	....	....	1	....	2	.01	....	1,000.00	....	....	2.00
6. Diphtheria et croup	3	61	64	51	1	1	53	11	958	.65	.01	962.26	18.87	18.87	15.71
7. Dysenteria	13	183	196	169	2	11	182	15	5,330	1.96	.02	928.57	10.99	60.44	29.13
8. Erysipelas	1	23	24	21	1	1	23	1	308	.25	.01	913.04	43.48	43.48	13.39
9. Febris intermittens (malaria)	17	1,436	1,453	1,413	....	20	1,433	19	10,270	15.40	....	986.04	....	13.96	7.15
10. Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
11. Fractura ossium	129	1,206	1,335	1,137	33	70	1,240	138	49,538	12.93	.35	916.94	26.61	56.45	41.08
12. Gonorrhea	244	5,867	6,111	4,569	2	105	4,676	208	87,216	62.91	.02	977.12	.43	22.46	14.87
13. Hernia	34	353	387	324	3	38	365	28	12,776	3.79	.03	887.67	8.22	104.11	36.19
14. Influenza	24	3,196	3,220	3,065	4	18	3,087	134	15,704	34.27	.04	992.87	1.30	5.83	4.91
15. Insolatio (Hitzschlag, coup de chaleur)	....	7	7	7	....	....	7	....	24	.08	....	1,000.00	....	....	3.43
16. Luxationes articulorum	13	249	262	242	....	7	249	13	4,796	2.67	....	971.89	....	28.11	19.26
17. Meningitis cerebrospinalis epidemica	1	26	27	12	10	8	30	1	1,422	.28	.11	400.00	333.33	266.67	5.47
18. Morbilli	9	633	642	569	22	34	625	17	14,244	6.79	.23	910.40	35.20	54.40	22.50
19. Parotitis epidemica	10	958	968	950	....	17	967	1	16,284	10.27	....	982.42	....	17.58	17.00
20. Pleuritis	13	259	272	235	3	14	252	19	6,884	2.78	.03	932.54	11.90	55.56	26.58
21. Pneumonia crouposa sive lobaris	15	225	240	173	29	15	217	22	5,986	2.41	.31	797.24	133.64	69.12	26.60
22. Rheumatismus articulorum	34	542	576	517	....	35	552	26	13,684	5.82	....	936.59	....	63.41	25.25
23. Scarlatina	3	50	53	48	1	3	52	1	1,743	.54	.01	923.08	19.23	57.69	34.86
24. Scorbutus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
25. Syphilis	110	1,992	2,102	1,686	4	95	1,785	122	45,708	21.36	.04	944.54	2.24	53.22	22.95
26. Trachoma	....	15	15	12	....	2	14	1	531	.16	....	857.14	....	142.86	35.40
27. Tuberculosis pulmonum [1]	144	299	443	61	23	181	265	181	58,942	3.20	.24	230.19	86.79	683.02	197.13
28. Tuberculosis ceterorum organorum	7	29	36	9	8	13	30	6	2,367	.31	.08	300.00	266.67	433.33	81.62
29. Typhus abdominalis	1	7	8	4	....	....	4	4	487	.08	....	1,000.00	....	....	69.57
30. Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
31. Ulcus molle	107	2,186	2,293	1,529	....	37	1,566	660	29,653	23.44	....	976.37	....	23.63	13.57
32. Variola	....	4	4	4	....	....	4	....	118	.04	....	1,000.00	....	....	29.50
33. Morbi auris	18	624	642	592	....	36	628	14	8,131	6.69	....	942.68	....	57.32	13.03
	17	110	128	56	25	56	137	10	6,236	1.30	.26	408.76	182.48	408.76	52.40

37. Morbi oculi	28	940	968	911	....	34	945	27	11,686	10.08	....	904.02	....	35.95	12.45
38. Morbi systemat. urin. et sexual. (excluding venerie et syphilis)	35	927	962	823	16	81	920	44	18,092	9.94	.17	894.57	17.39	88.04	19.52

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[1] Includes tuberculosis of the larynx.

[2] Includes pericarditis and endocarditis.

[3] Diseases of the skin proper.

INTERNATIONAL TABLE VII.—*Most important diseases, by arms of service (enlisted men), American troops, 1915.*

Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.									Proportionate numbers—Admissions per 1,000 of mean strength.								
	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.
1. Alkoholismus acutus, including delirium tremens	440	104	280	39	37	9	30	130	121	12.91	7.22	14.77	7.08	19.71	12.41	21.99	33.41	9.73
2. Appendicitis, typhilitis, and perityphilitis	302	127	182	50	21	1	14	59	59	8.86	8.81	9.60	9.08	11.19	1.38	10.26	15.16	4.74
3. Bronchitis acuta	1,118	450	589	222	55	20	28	95	590	32.80	31.23	31.06	40.30	29.30	27.59	20.53	24.42	47.45
4. Cholera Asiatica	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
5. Cholera nostras	....	....	1	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....
6. Diphtheria et croup	28	16	4	2	....	....	....	4	7	.82	1.11	.21	.36	....	....	....	1.03	.56
7. Dysenteria	66	31	19	19	4	3	3	14	24	1.94	2.15	1.00	3.45	2.13	4.14	2.20	3.59	1.93
8. Erysipelas	7	3	6	....	1	....	3	....	3	.21	.21	.32	....	.53	....	2.20	....	.24
9. Febris intermittens (malaria)	513	144	295	160	138	1	13	42	130	15.05	10.00	15.56	29.04	73.52	1.38	9.53	10.79	10.45
10. Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
11. Fractura ossium	377	315	189	105	30	7	19	30	134	11.06	21.86	9.97	19.06	15.98	9.66	13.93	7.71	10.78
12. Gonorrhea	2,724	876	910	425	134	8	71	164	555	79.91	60.80	47.99	77.15	71.39	11.03	52.05	42.15	44.63
13. Hernia	113	45	70	16	15	5	4	12	73	3.31	3.12	3.69	2.90	7.99	6.90	2.93	3.08	5.87
14. Influenza	1,243	434	639	139	84	31	33	183	410	36.46	30.12	33.70	25.23	44.75	42.76	24.19	47.03	32.97
15. Insolatio (Hitzschlag, coup de chaleur)	1	4	....	....	....	....	2	....	....	.03	.28	....	....	....	....	1.47	....	....
16. Luxationes articulorum	88	59	45	20	4	1	2	12	18	2.58	4.10	2.37	3.63	2.13	1.38	1.47	3.08	1.45
17. Meningitis cerebrospinalis epidemica	8	....	7	....	....		....	1	10	.23	....	.37	....	....		....	.26	.80
18. Morbilli	207	44	62	22	4	....	1	7	286	6.07	3.05	3.27	3.99	2.13	....	.73	1.80	23.00
19. Parotitis epidemica	361	44	218	87	10	....	2	10	226	10.59	3.05	11.50	15.79	5.33	....	1.47	2.57	18.17
20. Pleuritis	101	37	41	21	10	1	5	10	33	2.96	2.57	2.16	3.81	5.33	1.38	3.67	2.57	2.65
21. Pneumonia crouposa sive lobaris	70	35	33	16	3	1	....	5	62	2.05	2.43	1.74	2.90	1.60	1.38	....	1.29	4.99
22. Rheumatismus articulorum	209	55	117	18	7	3	2	29	102	6.13	3.82	6.17	3.27	3.73	4.14	1.47	7.45	8.20
23. Scarlatina	12	7	3	1	....	....	1	5	21	.35	.49	.16	.18	....	....	.73	1.29	1.69
24. Scorbutus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
25. Syphilis	902	276	299	129	40	8	28	103	207	26.46	19.16	15.77	23.42	21.31	11.03	20.53	26.47	16.65
26. Trachoma	7	2	4	1	....	....	....	1	....	.21	.14	.21	.18	....	....	....	.26	....
27. Tuberculosis pulmonum[1]	123	28	52	19	9	1	6	27	34	3.61	1.94	2.74	3.45	4.79	1.38	4.40	6.94	2.73
28. Tuberculosis ceterorum organorum	14	1	10	....	....	....	....	1	3	.41	.07	.53	....	....	....	....	.26	.24

cus																		
31. Ulcus molle	1,252	267	282	160	38	4	15	34	134	36.73	18.53	14.87	29.04	20.25	5.52	11.00	8.74	10.78
32. Variola	1	1	1	1	....	....	....	....	....	.03	.07	.05	.18	....	....	....	....	....
33. Morbi auris	262	67	115	41	19	....	11	29	80	7.69	4.65	6.06	7.44	10.12	....	8.06	7.45	6.43
34. Morbi cordis [2]	49	13	27	12	1	....	1	5	13	1.44	.90	1.42	2.18	.53	....	.73	1.29	1.05
35. Morbi cutis [3]	734	323	435	119	47	4	11	38	216	21.53	22.42	22.94	21.60	25.04	5.52	8.06	9.77	17.37
36. Morbi mentis	151	46	77	17	6	....	3	16	42	4.43	3.19	4.06	3.09	3.20	....	2.20	4.11	3.38
37. Morbi oculi	386	141	198	52	33	6	8	23	93	11.32	9.79	10.44	9.44	17.58	8.28	5.87	5.91	7.48
38. Morbi systemat. urin. et sexual. (excluding venerie et syphilis)	311	162	148	65	24	6	13	44	154	9.12	11.24	7.80	11.80	12.79	8.28	9.53	11.31	12.38

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[1] Includes tuberculosis of the larynx.

[2] Includes pericarditis and endocarditis.

[3] Diseases of the skin proper only.

INTERNATIONAL TABLE VIII.—*Most important diseases, by months (enlisted men), 1915.*

Diseases of the international nosological table.	Admissions by months.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1. Alkoholismus acutus, including delirum tremens	101	110	87	99	75	88	122	97	98	84	109	130
2. Appendicitis, typhilitis, and perityphilitis	62	67	86	75	74	90	72	55	63	55	63	53
3. Bronchitis acuta	397	346	404	262	183	182	168	176	187	198	274	390
4. Cholera Asiatica												
5. Cholera nostras								1				
6. Diphtheria et croup	6	2	12	4	2	3		3	1	2		26
7. Dysenteria	7	9	12	13	18	19	9	21	21	17	23	14
8. Erysipelas	3	3	2		4	1	2	1	2	1	2	2
9. Febris intermittens (malaria)	92	65	98	164	215	210	136	111	97	110	78	60
10. Febris recurrens												
11. Fractura ossium	85	92	95	111	119	91	109	111	86	96	108	103
12. Gonorrhea	541	417	519	474	527	442	443	478	528	540	491	467
13. Hernia	24	28	33	34	30	30	33	21	34	30	31	25
14. Influenza	222	474	502	283	138	127	111	73	69	111	284	802
15. Insolatio (Hitzschlag, coup de chaleur)			1		1	3	2					
16. Luxationes articulorum	25	20	14	21	21	28	19	27	17	12	26	19
17. Meningitis cerrebospinalis epidemica	6	4	3	6	3	2						2
18. Morbilli	130	135	141	108	50	10	3	4	11	6	14	21
19. Parotitis epidemica	106	202	301	201	96	32	5	6	1	1	3	4
20. Pleuritis	14	21	28	27	28	20	25	23	15	20	16	22
21. Pneumonia crouposa sive lobaris	25	31	44	28	7	16	8	5	4	10	11	36
22. Rheumatismus articulorum	61	52	73	67	62	41	36	23	31	28	36	32
23. Scarlatina	15	6	5	8	6	4	3		1			2
24. Scorbutus												
25. Syphilis	220	166	167	198	174	152	154	147	137	160	158	159
26. Trachoma	1	1	4	3	1	1	1	1		1		1
27. Tuberculosis pulmonum[1]	23	17	36	16	22	22	32	37	25	26	29	14
28. Tuberculosis ceterorum organorum	4		4	4	2		3	4	2	2	2	2
29. Typhus abdominalis							1	1		3	2	
30. Typhus exanthematicus												
31. Ulcus molle	247	192	168	188	170	164	175	182	165	171	175	189
32. Variola		1	1				1			1		
33. Morbi auris	57	45	83	56	55	55	55	70	40	37	36	35
34. Morbi cordis[2]	6	7	8	15	15	13	9	10	9	10	12	7
35. Morbi cutis[3]	154	103	130	168	165	179	213	179	185	184	145	122
36. Morbi mentis	38	40	51	27	19	26	26	21	28	31	25	26
37. Morbi oculi	67	86	97	83	76	82	84	76	61	88	82	58
38. Morbi systemat. urin. et sexual. (excluding venerie et syphilis)	78	71	86	82	67	82	79	75	74	81	88	64

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[1] Includes tuberculosis of the larynx.

[2] Includes pericarditis and endocarditis.

[3] Diseases of the skin proper only.

INTERNATIONAL TABLE IX.—*Deaths by rank, by length of service and by age, 1915.*

Causes of death.	Total number of deaths (enlisted men).		Deaths by rank and length of service.				Deaths by age.					
	Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and over.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	40 and over.
eaths from sickness	246	2.60	59	73	36	78	19	81	42	36	27	41
Soldiers present with troops	147	1.55	28	53	22	44	14	57	25	18	13	20
Soldiers absent from troops	99	1.05	31	20	14	34	5	24	17	18	14	21
ccidental deaths	140	1.48	19	26	25	70	10	62	29	20	11	8
Soldiers present with troops	95	1.00	14	20	21	40	8	43	19	14	7	4
Soldiers absent from troops	45	.48	5	6	4	30	2	19	10	6	4	4
uicides	50	.53	13	8	6	23	....	15	12	9	7	7
Soldiers present with troops	38	.40	12	5	5	16	....	10	9	6	7	6
Soldiers absent from troops	12	.13	1	3	1	7	....	5	3	3	....	1
Total	436	4.60	91	107	67	171	29	158	83	65	45	56

NTERNATIONAL TABLE X.—*Discharges from the Army for physical disability, temporary or permanent, by rank, length of service, and by age, 1915.*

Causes of discharge.	Total discharges (enlisted men.)		Rank and length of service.				Age.					
	Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and over.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	40 and over.
hysical disability existent prior to enlistment	761	8.03	9	522	153	77	98	452	149	52	8	2
hysical disability incident to service	471	4.97	54	102	80	235	33	192	119	62	28	37
hysical disability not incident to service	119	1.26	11	28	26	54	4	42	26	23	14	10
Total	1,351	14.26	74	652	259	366	135	686	294	137	50	49

Very respectfully,

H. P. BIRMINGHAM,
Colonel, Medical Corps,
Acting Surgeon General.

The SECRETARY OF WAR.

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REPORT OF THE SURGEON GENERAL OF THE ARMY.

I have the honor to transmit herewith the annual report of the Surgeon General of the Army for the calendar year 1916, including a financial statement for the fiscal year 1916–17. This is the one-hundredth consecutive annual report of the Surgeon General, the first having been compiled in the year 1818. The century covered by these reports, extending approximately from the War of 1812 to the War of 1917, has been a period of remarkable scientific and professional advancement and of military and material achievement for our country in which the Medical Department and the Army of the United States have played a highly creditable if not a conspicuous part.

GEOGRAPHICAL DISTRIBUTION.

The wide geographical range and varied character of the activities of the medical officers of the Army during the past two decades have been a matter of frequent comment. The year 1916 proved no exception to the rule, and the Medical Corps found its field of action, not only in the various parts of continental United States, but also in Mexico, in Alaska, in Panama and Porto Rico, in Hawaii, in the Philippines, and in China. It may be stated in passing that recent events have further increased the regional distribution of our Army, and the Medical Corps now faces the sanitary and hygienic problems of a great modern war, staged with a European background, and under conditions unparalleled in the history of warfare.

The services rendered by the officers of the Medical Corps have been highly satisfactory in all respects, administrative as well as professional, and have entirely justified the commendation made by their superiors in official reports.

Special emphasis should be placed upon the excellent work accomplished by the medical officers of the Regular Army in connection with the expedition into Mexico, and particular attention should be directed to the exceptional results achieved in the Southern Department by the medical officers of both the Regular Army and the National Guard during the mobilization of the Army and the Guard on the border in the summer and fall of 1916.

The following senior medical officers of the Medical Corps, United States Army, have held positions of special importance during the year 1916:

Col. Henry P. Birmingham, Acting Surgeon General, United States Army, during the period of mobilization of the Regular Army and National Guard, June–December, 1916.

Col. William H. Arthur, commandant Army Medical School and Laboratories, Washington, D. C.

The department surgeons, commanding officers of general hospitals, officers in charge of Red Cross and special work and general supply depots, and the chief surgeons and sanitary inspectors of expeditionary forces were: Colonels of the Medical Corps Charle Richard, Rudolph G. Ebert, William H. Arthur, George E. Bushnell, Henry P. Birmingham, William O. Owen, William Stephenson, Guy L. Edie, William D. Crosby, Charles M. Gandy, Walte D. McCaw, Jefferson R. Kean, Henry I. Raymond, William F Kendall, William B. Banister, Charles F. Mason, James D. Glennan Alfred E. Bradley, Euclid B. Frick, Frank R. Keefer, Charles Wilcox, Thomas U. Raymond, Henry D. Snyder, Allen M. Smith Joseph T. Clark, Merritte W. Ireland, Henry C. Fisher, Henry A Shaw, Francis A. Winter, George D. Deshon, Champe C. McCullough, jr., Frederick P. Reynolds, Paul F. Straub, Alexander N Stark, Charles Lynch, Edward L. Munson, James M. Kennedy Deane C. Howard, William H. Wilson, William F. Lewis, Thomas S Bratton, Thomas J. Kirkpatrick, Irving W. Rand, Powell C. Fauntleroy, James S. Wilson, Basil H. Dutcher, Leigh A. Fuller, George A. Skinner, Carl R. Darnall, Henry Page, Bailey K. Ashford, Henry A. Webber, Jesse B. Clayton, Weston P. Chamberlain, Edward R Schreiner, Frederick M. Hartsock, Douglas F. Duval, and Clarence J. Manly.

THE GREAT WAR.

On the 6th of April, 1917, the United States entered as an active participant the European war, the most formidable military contest of all time, ancient or modern.

It is manifestly undesirable at this time to allude except in most general terms to the preparations made for this struggle by the War Department, or refer except briefly to the plans of the Medical Department for its very important part in the war, with its exacting responsibilities in connection with all that relates to the health, hygiene, and sanitation of the enormously increased military forces of the United States, included in the Regular Army, National Guard, and National Army.

The details of the important work mentioned and the medical history of the part taken by the United States in the great war will be properly a subject for future annual and special reports, and the means to secure this end have already been given careful consideration with the view that nothing of professional or historical value and interest may be lost.

As evidence of the unprecedented expansion of the activities of the Medical Department of the Army, it can be stated that at this time there are more than 13,900 officers engaged in the work of the Army Medical Department, including officers of the Regular Medical Corps, and the four Officers' Reserve Corps—Medical, Dental, Veterinary, and Sanitary—connected with the work under the direction of the Surgeon General of the Army.

It is believed that at least 24,000 physicians will be included in the personnel of the Medical Department of the Army when full strength is attained.

Every step in caring for the physical welfare of the enlisted men, officers, and civilians associated directly with the military organizations of the United States from the time of their entry into active service until they are discharged comes under the direction of the Medical Department of the Army.

In this work is included the physical and mental examination nd training of recruits, the supervision of the water supplies, the spection of foods to be served, the disposition of wastes, sanitaon of cantonments and camps, care of sick and wounded, includng proper records of all cases, the operation of field, base, and conlescent hospitals, reeducation of the permanently crippled and e handling of the necessary medical supplies and equipment for l this work.

The total number of hospital beds will be placed on a basis of 25 r cent of the strength of the Army.

In preparing for the great task devolving upon the Medical Department, as outlined above, this office is having the earnest and wholearted support of the entire medical profession of the United States, hich has responded promptly and placed at the disposition of the rgeon General of the Army the services of the most distinguished pecialists in all branches of medical endeavor.

These distinguished men of the medical profession enrolled as embers of the Council of National Defense, and as commissioned ficers of the Medical Reserve Corps, are rendering a service to the rmy and to the country which can not be overestimated and which ill ever be held in grateful remembrance.

GENERAL HEALTH OF THE ARMY.

The general health conditions of the United States Army for the lendar year 1916 were in all respects satisfactory and in view of e unusual circumstances connected with the mobilization on the order and the expedition into Mexico, may be fairly regarded as pecially creditable to those directly associated with the management all matters pertaining to the health and sanitation, particularly the troops serving in the Southern Department.

The mean strength (corrected for time) of the entire Army, Amerin and native troops, including the National Guard, was 176,803 for e year 1916. Its noneffective rate from all causes in the year was 4.26 per 1,000 and for disease alone, 20.55, both of which ratios ere slightly lower than for the previous year, 25.22 and 20.85, spectively.

The admission rate for the Army, including the National Guard, r 1916, was 858.87, as compared with 726.22 for 1915; the discharge te was 15.22, as compared with 14.06 for the previous year, and e death rate was 4.39, as against 4.45 per 1,000 of mean strength.

The mean strength of the entire Regular Army for the calendar ear 1916 upon which the statistics contained in the annual report re based, was 110,454.

The noneffective rate for the entire Regular Army for 1916, from ll causes, was 26.99 per 1,000 and for disease alone 22.63, being ightly higher than for the previous year, 25.22 and 20.85, respectely, but much lower than the average of these rates for the decade, 4.99 and 29.65, while that for the year 1906 was 47.86 per 1,000 om all causes.

The admission rate for the entire Army for 1916 was 726.45, as ompared with 726.19 per 1,000 for 1915.

The death rate of the entire Army for 1916, from all causes, was .19 per 1,000, compared with 4.45 for 1915, which was slightly higher than the lowest mortality rate in the Army for many year 4.40 for 1914. The death rate from disease was 2.71 per 1,000 f 1916, as compared with 2.53 for 1915; the average for the decade w 2.94 and for the year 1906, 3.77.

The discharge rate for the year 1916, from all causes, was 15. per 1,000 as against 14.06 for 1915 and 12.78 for 1914; while t rate for this year is slightly higher than for the two years previou it was less than the discharge rates prior to 1910 when they range from 16.64 upward.

The total losses of the Army from all causes—deaths, discharge and retirements—was 20.92 per 1,000 for 1916 and 18.03 per 1,00 for 1915; for the year 1914 the rate was 16.86, the lowest in the pa decade.

Malarial fevers show a noneffective rate of 0.62 for 1916, as co pared with 0.54 for 1915, the lowest noneffective rate in the histor of the Army. In 1906 the noneffective rate for malarial fevers alon was 2.55 per 1,000. The decade following has demonstrated th effectiveness of the antimalarial measures that have been unceas ingly employed by the sanitary officers of the Army each year, ex hibiting, with but two exceptions, a marked decrease in the incidenc of the disease.

The entire force in the Philippines, including native troops, gav an admission rate of 715.87 for 1916 as compared with 853.65 for th previous year, and noneffective rates, respectively, 23.27 and 24.72 This record is especially creditable, as compared with former years though here, as in the Canal Zone, the Medical Department has bee at some disadvantage, through lack of screening or other antimos quito requisites, due to insufficient appropriation of funds for thi important work. There should be no further delay in properl screening all buildings in the Tropics occupied as hospitals, barracks or quarters.

The highest noneffective rate, for disease alone, for 1916 wa among the troops stationed in China, 28.22 per 1,000. The rate i slightly lower than last year, when it was 31.78 per 1,000. Ther follows in order: United States with 25.51; Canal Zone with 23.45 Porto Rico with 22.53; Philippine Islands with 19.86; Hawaii wit 15.23; Mexico with 12.79; and Alaska had a rate of only 6.23, whic is slightly higher than that for last year, 6.02.

Typhoid fever.—Typhoid fever has always held an important plac in relation to the health and efficiency of armies. Its widesprea occurrence in civil communities has caused in the past its promp appearance among recently recruited levies of troops, especiall those of youthful age from rural districts.

The history of typhoid fever in the United States Army is now a matter of common knowledge. The ravages of the disease in the volunteer organizations encamped in the South during the summe and autumn of 1898, the year of the Spanish-American War, is wel remembered. Improved methods in camp sanitation, the specia care given to food and water supplies, and the disposal of refuse and excreta all contributed to the marked reduction in the incidence o typhoid fever among the Regular troops during the decade following the War with Spain.

It was not, however, until the introduction of vaccination against typhoid, a procedure made compulsory in the United States Army

1911, that this disease ceased to become a distinct menace in our rvice whenever any considerable body of troops were mobilized der the conditions usually prevailing in the field.

With the thorough vaccination of the Army, typhoid fever has peared only sporadically, usually less than a dozen or two cases a ar—this among troops serving in many climates and countries lfway round the world—in fact, has been regarded as a remarkable cord and unquestioned proof of the value of typhoid vaccination. ring the past year there were 96 cases of typhoid fever in the tire Army with 5 deaths resulting. Of this number 16 cases among gulars and 71 in the National Guard, a total of 87, occurred within e continental limits of the United States; of the 9 other cases, 7 re in Hawaii and 2 in Mexico.

The results following compulsory vaccination in the Army are now ll known and are exemplified by the record of the present year en compared with those for the year 1898 when the Army was erating under similar disadvantages.

The observations of competent observers have proved conclusively at the triple typhoid vaccine, adopted for immunizing the entire my against typhoid and paratyphoid fevers, gives as good results immunization as does the typhoid alone and that neither the genal nor local reactions following its injection are different in any degree om those occurring after the inoculation of simple typhoid vaccine.

The results, both from a practical and theoretical point of view, e all in favor of combining the three organisms in a single vaccine, d it is believed amply justify the use of the triple typhoid vaccine immunizing our troops against the typhoid and paratyphoid fevers.

Paratyphoid fever.—Paratyphoid fever had been but little known and rely diagnosed and reported in our military service prior to the ar 1916. Many such cases had undoubtedly been reported as vers of undetermined causation.

There were 410 cases of this disease reported in the entire Army—4 for Regulars and 296 for the National Guard.

During the mobilization of the Regular Army and National Guard the Mexican border and during the expedition into Northern exico, paratyphoid fever was recognized quite frequently, and in o forms caused by distinct bacilli known as paratyphoid "A" and ratyphoid "B," the former being the causative agent in the very rge proportion of cases.

Vaccination against the disease was rigorously instituted by the ting Surgeon General with the result that several outbreaks of the sease in the Southern Department were immediately checked, all oops in the infected divisions being fully immunized against the sease. There were 410 cases of paratyphoid fever reported, 2.32 r 1,000 of mean strength, of which over 95 per cent were of the "A" pe. These cases were distributed as follows: The Regular Army rnished 114 cases, of which number 22 occurred in the United ates, 91 in Mexico, and 1 in China. The National Guard had 296 ses which, with the 22 for Regulars, made 318 in the year for the nited States.

Vaccination against both typhoid and paratyphoid fever is now complished by the use of a mixed vaccine, recently adopted and own as "The Triple Vaccine" from the fact that it is made from the bacillus typhosus, the bacillus paratyphosus A, and bacil typhosus B.

This vaccine prepared, as have been all the Government vaccir in the past few years, in the laboratories of the Army Medical Scho Washington, D. C., is given in a single series of three doses, the fi containing ½ c. c. and second and third doses 1 c. c. each, with interval of approximately 10 days between each administration.

Malarial fevers.—As in previous years, this disease shows a mark decrease throughout the Army, with the possible exception of certa of the garrisons in the Philippine Islands situated in malarious d tricts, and with many carriers among the local native populatio The admission rate in 1916 for this disease in the entire Regular Arn was 23.61, slightly lower than for the previous year, when it was 25. per 1,000 of mean strength. The noneffective rate was 0.62 as again 0.54 for the previous year. The National Guard had a case rate 31.50 with 0.64 noneffective per 1,000 of mean strength.

Measles.—Regular troops serving in the United States (continenta year 1916 furnished 1,247 cases of measles and 9 deaths, propo tionately 19.35 and 0.14 per 1,000 of mean strength, as compar with 12.86 and 0.14 for the National Guard. The entire Arm Regulars and National Guard, all stations, home and abroad, ha 2,168 cases and 18 deaths, respectively, 12.24 and 0.10 per 1,000 strength. The rates for Regulars in 1915 were, respectively, 8. and 0.29.

The recruit depots, particularly at Columbus Barracks and Jeffers Barracks, Mo., were frequently overcrowded during the winter ar early spring months, with the result that has invariably attend such congestion. Many cases of measles occurred, chiefly among t highly susceptible material from the southern rural districts, t cases not infrequently being complicated with middle ear disease- empyema and broncho-pneumonia; all were very serious complic tions, particularly the latter, and as in civil life resulted fatally in considerable number of instances.

In this connection it is a timely thing to again utter the earnes warning against the overcrowding of troops, particularly recruits an fresh levies in their tents, camps, barracks, and cantonments.

Overcrowding and close contact of the well with the sick in th early stages of illness is the prime cause in rapid spread of practicall every disease, but more especially is this true of those affecting th naso-pharynx and the respiratory system, including tuberculosis measles, mumps, scarlet fever, pneumonia, and epidemic meningitis

The occurrence of measles in epidemic form among certain organizations in camp on the Mexican border gave an opportunity for competent observers to investigate the disease under the conditions obtaining in the field and led to the conclusion of a well-known authorit that not only are measles epidemics preventable, but that in th future they should be prevented not only in the field but also in barracks and recruit depots, the result being assured, if proper ventilatio and other facilities are provided and attention given to the important matter of the prevention of overcrowding; to the prompt isolation of contacts, and to the careful segregation of the nonimmune all under rigid and repeated inspections by trained medical officers

Tuberculosis.—Pulmonary tuberculosis continues to hold a ver important position among the cause for disability discharge from th rmy, and the desirability of early recognition of the disease, par- ularly at recruit stations and depots in applicants for enlistment, at once apparent,and the matter has been given careful considera- on.

As at present provided, all candidates for the military service will given not only the usual strict physical examination always re- ired under the existing regulations but will be further brought ider the observation of a special board of experts chosen from e distinguished clinicians of the Medical and Medical Reserve rps of the Army. The duties of these special examiners are most iportant and are included under the following general heads:) To exclude cases of manifest tuberculosis from the Army; (2) to ld to service men who allege tuberculosis as a ground for exemp- n under the selective draft, or discharge on the basis of insufficient incorrectly interpreted signs and symptoms; (3) to determine in ses of soldiers accepted for the military service the existence of ulmonary tuberculosis and to decide whether or not the disease s been incurred in the line of duty. Definite and explicit instruc- ons to govern these examiners have been prepared and issued by is office.

Venereal disease.—It has often been assumed by well-meaning but -informed critics that illicit sexual intercourse and venereal dis- ses are more common in the military forces of the United States han in civil life.

That this is an erroneous conclusion is well known to most of the edical practitioners of the country, and one resulting principally om the fact that the statistics of these diseases are collected by the irgeon General of the Army and frankly published, whereas the rresponding figures for civilian life are incomplete and inaccessible.

Recent legislation giving to the Secretary of War and the military mmanders authority to control not only, as heretofore, the mili- ry reservations and cantonments, but also the civil communi- es immediately adjacent, in all matters relating to prostitution and e sale of alcoholic drinks, will do much to bring about the desirable nditions long sought for by the Army sanitarian.

It should be repeated that venereal diseases have never had their rigin in military reservations, where strict discipline and constant spections have rendered it impossible, but rather in the laxly overned civil communities surrounding many Army posts, where norance of conditions and indifference, or something even worse on e part of local authorities, have conduced to widespread infection, ot only of the civil population but the soldiery as well.

The law referred to, which marks such a great step forward in the atter of military sanitation and hygiene in our country, was pro- ulgated May 24, 1917, as sections 12 and 13 of Bulletin No. 32, Var Department, as follows:

Sec. 12. That the President of the United States, as Commander in Chief of the rmy, is authorized to make such regulations governing the prohibition of alcoholic quors in or near military camps and to the officers and enlisted men of the Army s he may from time to time deem necessary or advisable: *Provided*, That no person, rporation, partnership, or association shall sell, supply, or have in his or its posses- on any intoxicating or spirituous liquors at any military station, cantonment, camp, rt, post, officers' or enlisted men's club, which is being used at the time for military urposes under this act, but the Secretary of War may make regulations permitting the sale and use of intoxicating liquors for medicinal purposes. It shall be unlawf to sell any intoxicating liquor, including beer, ale, or wine, to any officer or memb of the military forces while in uniform, except as herein provided. Any perso corporation, partnership, or association violating the provisions of this section or t regulations made thereunder shall, unless otherwise punishable under the Articl of War, be deemed guilty of a misdemeanor and be punished by a fine of not mo than $1,000 or imprisonment for not more than 12 months, or both.

SEC. 13. That the Secretary of War is hereby authorized, empowered, and direct during the present war to do everything by him deemed necessary to suppress ar prevent the keeping or setting up of houses of ill fame, brothels, or bawdy houses with such distance as he may deem needful of any military camp, station, fort, post, ca tonment, training or mobilization place; and any person, corporation, partnershi or association receiving or permitting to be received for immoral purposes any pe son into any place, structure, or building used for the purpose of lewdness, assignatio or prostitution within such distance of said places as may be designated, or shall pe mit any such person to remain for immoral purposes in any such place, structur or building as aforesaid, or who shall violate any order, rule, or regulation issued carry out the object and purpose of this section shall, unless otherwise punishab under the Articles of War, be deemed guilty of a misdemeanor and be punished by fine of not more than $1,000 or imprisonment for not more than 12 months, or bot

VACCINATION IN THE ARMY.

The subject of vaccination against smallpox, typhoid, and paraty phoid fevers is one concerning which this office has received man inquiries.

It may be stated here that the question of vaccination against th three diseases mentioned above has been considered by both the lin and staff many times in the history of the Army, particularly wit reference to vaccinations against smallpox, with the result that Wa Department orders have always required compulsory vaccinatio against smallpox.

In this connection the experience of the French in the Franco Prussian War should be remembered. In 1870 one of the wors epidemics of smallpox of recent times spread throughout Europe largely due to the movement of troops. This epidemic did not ceas until after 1873, when peace conditions again prevailed.

The Germans were fairly well vaccinated, for, while there was n revaccination law, those entering the army were always vaccinated while in France vaccination was very poorly practiced.

As a result, there were not only more cases in the French Army but they were of a more malignant type. Therefore, the absolut mortality was 50 times greater in France than in Germany and th rates of deaths to the number of cases nearly twice as large.

Vaccination (inoculation) against typhoid fever was a direct out growth of the disastrous epidemics of typhoid in our camps durin the Spanish-American War. The commission which investigate this notable epidemic (Majors Reed, Vaughan, and Shakespeare) demonstrated that one-fifth of the soldiers in the national encamp ments had typhoid fever. Among 107,973 men there were 20,73 cases and 1,580 deaths.

The experience of the British in South Africa was equally deplorable.

Antityphoid vaccination protects us against similar disasters an is the only method which protects under war conditions.

Voluntary antityphoid vaccination was begun in the Unite States Army in 1909 and continued until the mobilization at Sa Antonio, Tex., in March, 1911. Since that time it has been compuly in the military service. Full protection of the Army against hoid was not obtained in the Army until the vaccination was de compulsory.

he sanitary and military necessity for compulsory vaccination inst smallpox, typhoid, and paratyphoid in every person asso-ed closely with the military forces of the country has been clearly l forcibly demonstrated. No exceptions should be made: every cer, enlisted man, and civilian employee should be fully immunized, as can be readily understood, an unprotected individual is a nace, not only to himself but to the whole command with which is associated.

SPECIAL DISEASES.

n view of the increasing importance to the military service of ntal diseases—diseases of the cardio-vascular system and orthope-s—particularly in relation to recruiting of new levies, the Surgeon neral has called to the assistance of the experts of the Regular dical Corps, as consultants, eminent members of the Medical serve Corps skilled in these specialties, who will be assigned to the ge military stations for duty as occasion may require.

hey will act either as members of the medical staff of the organi-ion, with more or less permanent assignment to it, or in certain ses they may visit a command for a temporary service to act as nsultants with the camp surgeon or to give instruction in their ecialties to the medical officers on regular duty with the troops.

HOOKWORM DISEASE.

Several regiments recruited from the rural districts and small towns the Southern States have been subjected to special investigation experts of the Medical Corps to determine the frequency of hook-rm infection. The results are such as to demonstrate clearly the sdom of making a routine examination of all recruits entering the vice from certain geographical regions, as is now being done.

It has been shown, for example, that three regiments from different ates of the South, consisting of approximately 3,400 men, con-ned individuals infected with hookworm, the percentages of those rboring the parasite being reported as 6, 32, and 54 per cent of the tal strength of the organizations.

The American hookworm (necator Americanus) is prevalent nearly erywhere in the Southern States and has been frequently found our island possessions. The freeing of the population in Porto co from this demoralizing pest constitutes one of the most valuable eces of scientific and economic work ever accomplished by a medical ficer of the Army. More recently members of the Medical Corps, rving with commissions appointed for the purpose of investigating e hookworm problem in the United States, have rendered important ports and contributed much to the general knowledge of the subject this country.

LOBAR PNEUMONIA.

This disease, always an important one and heading the mortality t of acute diseases in both military and civil life, prevailed in a arked degree among certain organizations in the Southern Department during the winter and early spring months of 1916–17. T localized epidemics were given careful study by special medi officers detailed for that purpose, and their valuable reports ha already been published and widely read.

It has been demonstrated that if camps are maintained during t winter months epidemic lobar pneumonia must be given seric consideration by the military sanitarians, a fact recently shown n only by our experience but also by the reports from the arm abroad.

So that in addition to our labors against the other diseases, wh infection is acquired through the nasopharynx, such as measl mumps, diphtheria, and meningitis, we must now give renewed a most extraordinary attention to our precautions against "tl greatest of all the captains of the men of death."

Epidemic lobar pneumonia may be expected in the great cam during the winter months as a result of infection by a pneumococc occurring in two principal types. Evidence at hand indicates th tent, company, and regimental contagion is probable. Serum tre ment has produced excellent results in keeping down mortalit while vaccination is considered quite as valuable a measure of pr vention as isolation. A combined pneumococcus and meningococc vaccine has been strongly urged for immunizing a command wh the action is indicated by the character of the epidemic.

THE ARMY MEDICAL SCHOOL.

The Army Medical School, now located at 462 Louisiana Aven NW., Washington, D. C., has had the most important and successf year in its history and has experienced a development and expansic quite beyond the thought and purpose of its founders. The wi scope of its present activities and the very important work it h accomplished during the past 12 months, not only for the Army b also for the other branches of the military service, is clearly set for in the report of Col. William H. Arthur, Medical Corps, who as tl commandant of the school since October, 1915, with the aid of a efficient corps of assistants, has produced the splendid and far-reacl ing results already mentioned and now generally appreciated througl out the country. Attention is invited specially to the statement the Army Medical School which appears in the following pages.

In the report of last year referring to the school it was state that its importance to the military service could hardly be ove estimated and recommended that steps be taken looking to the se curing by the Government of a suitable modern building speciall designed for its purposes.

Heretofore its activities have been in no small degree handicappe by crowded or imperfectly arranged rented buildings, and while it present quarters are much better adapted to the uses of the schoo than any of its former homes, yet they are far from ideal in arrang ment, size, and location and leave much to be desired.

The Army Medical School having now demonstrated fully its grea sphere of usefulness in both scientific and utilitarian lines, th Government should no longer hesitate in providing it a permanen and modern home of its own—one that might quite possibly wit advantage be made sufficiently large to house also the library of th Surgeon General and the museum.

THE SURGEON GENERAL'S LIBRARY.

The reports of the Surgeon General of the Army have contained in ties past references and recommendations relating to the great and ique collection of medical literature now contained in the building at th corner of Seventh and B Streets SW., this city.

The importance of this library of the Surgeon General as it is own to the Army and to the medical profession of the country is ll recognized by the entire scientific world, but the fact that it is now used in a building obsolete, crowded, and nonfireproof does not pear to be so generally known nor to have attracted the immediate ention that the subject deserves.

As has been previously stated, the library of the Surgeon General the Army began as a small collection of books in the office of rg. Gen. Lovell in 1835, numbering about 228 volumes in 1840 d increased to about 587 in 1862.

The library in 1865 came first under the master hand of John aw Billings, and to this able medical officer and distinguished liographer must be given the greatest credit for several unique tures in connection with its development. In 1889 the collection nsisted of about 1,000 volumes. In 1895 it had grown under the ministration of Capt. Billings to 300,000 portraits, books, and mphlets. During this period the librarian conceived and promptly itiated the ingenious plan of a medical catalogue, indexed for thor and subject, that should embrace not only monographs and andard works but also the reports of individual cases, upon which many conclusions of medical science depend.

From this beginning has developed the Universal Catalogue of edical Literature. The Index Catalogue, the first volume of hich was issued in 1880, consisted of 880 quarto pages. Since that ate at least one such issue has been made annually by him and his ble successors, Billings himself having edited the entire first 16 olumes, which ran through the alphabet.

This Index Catalogue, requiring great technical knowledge, inllible arrangement, and unceasing industry, has been kept fully up date, and to the latest professional advances, and, making its way er the earth wherever medical science is known, has brought great edit to the Army and fame to its designer and compilers, and has ceived the high commendation of the whole world, praise not ven to mediocre work.

The Surgeon General's library on June 30, 1917, contained bound olumes, theses, journals, transactions, unbound volumes, and pamhlets, constituting the largest and doubtless the most valuable colction of medical literature in the world.

The Army Medical Museum is now located in the same building the Surgeon General's library and has developed during the past alf century in close connection with it.

The museum had its inception under the direction of Surg. Gen. William A. Hammond in 1862. It began very simply, as all the reat collections have, but with the passing years under the skilled irection of many capable and devoted hands it has developed into ne of the largest, most instructive, and valuable museums in existence. It consists now of approximately 47,681 specimens, pathological, natomical, comparative anatomy, microscopical, and miscellaneous, and about 15,000 photographs and negatives. Approximately 8,0 specimens have been received through donation or secured by e change with other institutions.

The Surgeon General desires at this time to urge most earnes that an appropriation be made at once by Congress for the erecti of a suitable building to contain these two remarkable collections the Surgeon General's library and the Army Medical Museu They constitute one of the Nation's most valued assets and a treasu of inestimable worth to the medical profession and to scientific m and scholars of this and other countries.

There should be no delay in erecting in some central spot in o Capital City a modern, fireproof structure, adequate in every respe to house for all time in safety what is justly considered to be t most useful as well as the most extensive collection relating to me cine and science ever achieved.

MEDICO-MILITARY OBSERVERS.

The outbreak of the great war in August, 1914, found seve officers of the Medical Department of the United States Army Europe. They were promptly detailed and accredited as observe with the several combatant armies. Others were sent over by t War Department in 1915 and later, in May, 1916, several experience and specially qualified officers of the Medical Corps were detail upon recommendation of the Surgeon General for duty with t British and French forces on the western battle front.

The excellent work accomplished by all these officers since the arrival in Europe has been a matter of great assistance to the W Department and of particular advantage and satisfaction to th Medical Corps.

The wisdom of having medical officers with the European armi was early recognized and the only regret, now that the United State has since April, 1917, been an active participant in the great strugg is that more of them could not have been spared for duty abroa in the early months of the war.

The courtesies and privileges extended to the representatives the Medical Corps of the United States Army in Europe have bee greatly appreciated by the officers themselves and by the Surgeo General and the authorities of the War Department. As a furthe evidence of the good will and cooperation that now exists betwee the medical services of the allied forces, distinguished and high experienced medical officers of the British and French Armies hav been sent by their Governments as aides and consultants on th staff of the Surgeon General of the Army at Washington. Th value of the assistance they are so efficiently and cheerfully renderin the United States Medical Department can not be too strongl emphasized and commended.

ARMY NURSE CORPS.

The mobilization of the regular troops and militia on the Mexica border having resulted in the establishment of many hospitals a which nurses were needed, an addition of 276 nurses was authorize early in the year to meet the emergency. Nurses were appointe the regular corps as rapidly as possible and their number was rther augmented by the assignment of a large number from the serve, the enrolled nurses of the American Red Cross constituting he reserve. During the year nurses were sent to the following laces:

Base Hospital No. 1, Fort Sam Houston, Tex.
Base Hospital No. 2, Fort Bliss, Tex.
Base Hospital No. 3, Brownsville, Tex.
Base Hospital No. 4, Eagle Pass, Tex.
Base Hospital No. 5, Nogales, Ariz.
Camp hospital, Deming, N. Mex.
Camp hospital, Douglas, Ariz.
Camp hospital, Laredo, Tex.
Camp hospital, McAllen, Tex.
Camp hospital, Marfa, Tex.
Cantonment hospital, Columbus, N. Mex.

nd to the hospital train which has its headquarters at Camp Wilson, Tex. With the withdrawal of the troops the work at these laces gradually decreased and nurses were withdrawn from Columus, Llano Grande, McAllen, early in the year and later on from Marfa and Deming.

The Mexican Expedition.

The military expedition into northern Mexico, beginning in March, 916, and covering a period of nearly a year, presented many unusual eatures from the standpoint of the medical officer and in certain espects was unique.

Detailed reports from the surgeons assigned to the various organizations of the expedition have been received, and when opportunity presents will be given the full treatment they deserve in the form of a special bulletin. The most important features, however, are covered by the chief surgeons of the expeditionary forces in their reports presented in the following pages.

It may be here repeated that this force, consisting of United States troops of all branches of the service, crossed the Rio Grande River in early March, 1916, and entered the Province of Chihuahua, northern Mexico, in pursuit of bands of raiding outlaws, who had repeatedly disturbed the peaceful towns and settlements on the Texas border by unprovoked attacks.

The United States expeditionary force during most of its service consisted approximately of 12,000 men, divided into many detachments of varying size, distributed along an attenuated line of communication which reached several hundred miles southward from the base, established on the Rio Grande.

These troops conducted active and successful military operations in an arid, almost desert country, on a far extended line, under the most trying climatic conditions and with a restriction of food, clothing, and shelter quite unparalleled in the history of the United States Army when the length of service is considered.

During all of this arduous service the troops were maintained in an exceptional condition of health and efficiency. The noneffective rates compared favorably with those of the organizations serving in the home stations under garrison conditions.

The service of the Medical Department was thoroughly efficie and met all the unusual demands upon it in a manner to call fort the unqualified commendation of the commanding general of th expedition. The medical officers and the enlisted men of the Medic Department with the Mexican expedition of 1916 deserve to th fullest degree the praise bestowed upon them officially by the military associates and superiors.

THE MOBILIZATION OF THE REGULAR ARMY AND NATIONAL GUARD.

The concentration of practically the entire Regular Army an the National Guard in the Southern Department during the las six months of 1916 gave very exceptional opportunities for th instruction of troops in all matters relating to personal hygiene an in the sanitary precautions necessary to insure the health and comfort of soldiers in camp and on the march.

Generally speaking it may be said that the measures carried ou differed but slightly from those so successfully used in the past fe years by the Regular Army in other parts of the world. The stric attention to food and water supplies, to the careful disposal of wast materials of all kinds, coupled with vaccination against enteri diseases and the unceasing and vigilant scrutiny of trained sanitar inspectors, produced the satisfactory results that invariably follow such procedures. The general health of all the troops, as has bee said, was excellent. Sporadic outbreaks of communicable diseases were promptly checked and the physical vigor and the military efficiency of the various organizations at the close of the year was a matter of frequent comment and a subject of congratulation for al concerned, the National Guard proving themselves apt pupils equaling as a rule and frequently excelling the Regular troops with whom they were closely associated in maintaining an exceptionally low sick rate.

THE MILITARY SURGEON AND MEDICAL PRESS.

A large number of professional monographs and special reports, containing valuable information of scientific and military value to the officers of the service, have been received during the past year by the Surgeon General and have been appreciated and utilized so far as was practicable by this office.

The publication and prompt circulation of many of these important papers seemed highly desirable and to this end the medical press of the country has used its extensive facilities most freely and willingly to the very great advantage of the profession and the service.

The various journals of the country have contributed their share in forwarding this good work of education and have secured a publicity not otherwise obtainable at this time through the strictly official bulletins and reports of the year.

Particular attention in this connection is invited to "The Military Surgeon," the journal of the Association of Military Surgeons of the United States, which has rendered an exceptionally valuable service under the efficient direction of the associate editor, Col. John Van R Hoff, Medical Corps, retired.

HEALTH OF THE ARMY.

INTERNATIONAL NOMENCLATURE.

The diagnostic terms for diseases and injuries, adopted by the dical Department in accordance with the International Nomen- ture, are used with the international numbers for the fifth year in s report.

The International Nomenclature is used by most of the important eign countries. It is also used by the Census Bureau in this untry and by an increasing number of boards of health and large spitals.

In studying statistics for other countries, where the terms used are pressed in a foreign language, the international number furnishes eady key for their interpretation.

Following Table No. 81 will be found the 10 tables giving the litary statistics for the year 1916, as agreed upon at the Inter- tional Commission for the Unification of the Medical Statistics of mies, held at Budapest in 1894, at Madrid in 1903, and modified the last meeting held in Berlin in 1907. The diagnostic terms and mbers used in these tables are those agreed upon by the commis- n and are not to be confused with the terms and numbers of the ternational nomenclature used in the remainder of this report and sed upon the second decennial revision by the international com- ission held in Paris, July 1 to 3, 1909.

As in 1912, 1913, 1914, and 1915, only original admissions are used compiling the statistics in this report. In the years 1904 to 1911, clusive (reports 1905–1912), the readmissions were counted as dmissions. In this report in making comparisons between cases and dmissions the terms case admission (reports 1913–1916, inclusive, d prior to the one for 1905) and total admission (reports 1905–1912, clusive) will be used.

ADMISSION RATES.

Table No. 81 shows the total admission and case admission rates r American troops of the Army, for the United States, continental xclusive of Alaska), and for American troops in the Philippine lands for disease, external causes, and all causes separately for each ar 1904 to 1911, inclusive.

Table No. 68½ gives the rates per 1,000 for the entire Army. So uch interest has been displayed regarding the incidence of certain seases, especially tuberculosis, typhoid fever, and venereal dis- ses, for the entire Army—that is, for all officers and enlisted men, th American and native troops—that it was deemed advisable to blish this data to include all troops together. The rates for merican troops, enlisted men, placed in comparison for ready ref- ence, may be found in Tables No. 69 and 76.

OFFICERS.

The mean strength of officers was 4,734, as obtained from the ports of sick and wounded of the Medical Department, and 5,155 om the office of The Adjutant General. There were 2,408 admis- ons, 40 deaths, and 110.98 constantly noneffective from all causes, equal to ratios of 508.66, 7.76, and 23.44, as compared with ratios 553.03, 3.69, and 23.57 per 1,000 for the year 1915. The constant noneffective rate was higher than for 1915; the admission was lowe

The chief causes of admission and their rates were: Diarrhea ar enteritis, 57.24 for 1916, as against 39.14 for 1915; influenza, 51. as against 60.54 for 1915; diseases of the pharynx, 30.84 as again 31.63 for 1915; bronchitis, 29.57 as against 42.33 for 1915; diseas of the nasal fossæ, 24.29 as against 29.59 for 1915; and dengue, 11.4 as against 20.94 for 1915.

OFFICERS RETIRED.

Forty-five officers were retired on account of disability during tl year, making a rate for retirement for disability of 8.73 per 1,000, compared with 3.69 per 1,000 for 1915. The discharge rate for di ability in enlisted men (all) was 15.98, as compared with 14.06 p 1,000 for 1915.

The following table shows the principal causes for which retir ments were made and the rank and age of the officers retired:

TABLE NO. 1.—*Retirement of officers, United States Army, year 1916, for disabilit by causes and rank, grouped by ages.*

	Total.		Ages of officers, quinquennial groups.								
	Number.	Ratio per 1,000 of all officers.	24 years and under.	25 to 29 years.	30 to 34 years.	35 to 39 years.	40 to 44 years.	45 to 49 years.	50 to 54 years.	55 to 59 years.	60 yea an ove
CAUSES OF RETIREMENT.											
Arteriosclerosis	7	1.36	......	......	......	......	......	1	......	3	
Bright's disease	6	1.16	......	......	2	......	1	2	......	1	....
Neurasthenia	4	.78	......	1	......	......	2	......	1	......	....
Tuberculosis, pulmonary	3	.58	......	2	......	1	......	......	......	......	....
Arthritis, chronic	2	.39	......	......	......	1	1	......	......	......	....
Valvular heart disease	2	.39	......	......	......	1	1	......	......	......	....
Dementia from chronic pellagra	1	.19	......	......	1	......	......	......	......	......	....
Tumor of brain	1	.19	......	......	......	......	1	......	......	......	....
Diabetes mellitus	1	.19	......	......	......	......	1	......	......	......	....
Epilepsy	1	.19	......	1	......	......	......	......	......	......	....
Neurosis	1	.19	......	......	......	......	1	......	......	......	....
Psychasthenia	1	.19	......	......	1	......	......	......	......	......	....
Psychosis, traumatic	1	.19	......	......	......	1	......	......	......	......	....
Defective mentally	1	.19	......	......	......	......	......	......	1	......	....
Neuritis, chronic	1	.19	......	......	......	......	1	......	......	......	....
Myopic astigmatism	1	.19	......	......	......	......	1	......	......	......	....
Cataracts	1	.19	......	......	......	......	......	1	......	......	....
Impaired vision	1	.19	......	......	......	......	1	......	......	......	....
Impaired hearing	1	.19	......	......	......	1	......	......	......	......	....
Bronchiectasis, chronic	1	.19	......	......	......	......	......	......	1	......	....
Gastric neurosis, chronic	1	.19	......	......	......	......	......	......	1	......	....
Cirrhosis of liver	1	.19	......	......	......	......	......	1	......	......	....
Gunshot wound	1	.19	......	......	1	......	......	......	......	......	....
Amputation of leg	1	.19	......	......	1	......	......	......	......	......	....
Loss of tendon, right leg	1	.19	......	......	......	1	......	......	......	......	....
Old injury to left leg	1	.19	......	......	1	......	......	......	......	......	....
Sacro-iliac disarticulation	1	.19	......	......	......	......	......	......	1	......	....
RANK IN SERVICE.											
Major general	1	.19	......	......	......	......	......	......	......	1	....
Colonel	7	1.36	......	......	......	......	......	......	2	2	
Lieutenant colonel	1	.19	......	......	......	......	......	......	......	1	....
Major	7	1.36	......	......	......	......	3	2	1	1	....
Captain	23	4.46	......	1	6	5	7	3	1	......	....
First lieutenant	5	.97	......	2	1	1	1	......	......	......	....
Second lieutenant	1	.19	......	1	......	......	......	......	......	......	....
Number of retirements	45	8.73	......	4	7	6	11	5	4	5	

There were 43 deaths, with a rate of 8.34 per 1,000, as compared with 18 deaths, with a rate of 3.69 in 1915.

The following table shows the causes of deaths of officers:

BLE No. 2.—*Deaths of officers, United States Army, year 1916, by causes and rank, grouped by ages.*

	Total.		Ages of officers, quinquennial groups.								
	Number.	Ratio per 1,000 of all officers.	24 years and under.	25 to 29 years.	30 to 34 years.	35 to 39 years.	40 to 44 years.	45 to 49 years.	50 to 54 years.	55 to 59 years.	60 years and over.
CAUSES OF DEATH.											
unshot wounds (suicide 4, in action 2, homicide 1)	7	1.36	......	......	1	1	1	1	2	1	......
neumonia (lobar)	4	.78	......	1	......	......	2	......	......	......	1
acture of skull	3	.58	......	2	1	......	......	......	......	......	......
ppendicitis	3	.58	......	1	......	......	1	1	......	......	......
onchopneumonia	3	.58	......	......	......	......	2	......	1	......	......
rterial sclerosis	2	.39	......	......	......	......	......	......	1	1	......
yphoid	2	.39	......	......	1	......	......	......	1	......	......
poplexy	1	.19	......	......	......	......	......	1	......	......	......
ysentery, entamoebic	1	.19	......	......	......	......	1	......	......	......	......
uberculosis, pulmonary	1	.19	......	......	1	......	......	......	......	......	......
uberculous meningitis	1	.19	1	......	......	......	......	......	......	......	......
umor, suprarenal gland	1	.19	......	......	......	......	1	......	......	......	......
eucaemia	1	.19	......	......	......	1	......	......	......	......	......
yocarditis, chronic	1	.19	......	......	......	......	......	......	......	1	......
lcer of stomach	1	.19	......	......	......	......	......	......	......	1	......
lcer of duodenum	1	.19	......	......	......	1	......	......	......	......	......
rrhosis of liver	1	.19	......	......	......	......	......	......	1	......	......
iliary calculi	1	.19	......	......	......	......	1	......	......	......	......
ephritis, interstitial	1	.19	......	......	......	......	......	......	......	1	......
aynaud's disease	1	.19	......	......	......	1	......	......	......	......	......
arbuncle	1	.19	......	......	......	......	......	1	......	......	......
denoiditis, chronic, pneumococcus infection	1	.19	......	......	......	1	......	......	......	......	......
sphyxia, accidentally buried in snow	1	.19	......	1	......	......	......	......	......	......	......
rowning, accidental	1	.19	......	......	......	1	......	......	......	......	......
oncussion, cerebral, accidental	1	.19	......	......	......	......	......	1	......	......	......
rushing, automobile accident	1	.19	......	......	1	......	......	......	......	......	......
RANK IN SERVICE.											
ajor general	1	.19	......	......	......	......	......	......	......	......	1
olonel	4	.78	......	......	......	......	......	......	2	2	......
ieutenant colonel	1	.19	......	......	......	......	......	......	......	1	......
ajor	5	1.16	......	......	......	......	1	3	1	......	......
aptain	18	3.49	......	......	1	5	7	2	2	1	......
irst lieutenant	11	2.13	......	3	4	1	1	......	1	1	......
econd lieutenant	3	.58	1	2	......	......	......	......	......	......	......
Number of deaths	43	8.34	1	5	5	6	9	5	6	5	1

NOTE.—Three deaths reported on this table occurred at private hospitals and were not included in general tatistics.

ENLISTED MEN.

The mean enlisted strength of the Army, American troops, white and colored, for the year 1916, as reported on the monthly sick reports of the Medical Department and on the returns of The Adjutant General's Office, was 99,186. There was an increase in strength over the year 1915, for which the medical returns showed 93,262 and The Adjutant General's Office 94,729.

During the year 1916 American troops were stationed in the United States proper, the Philippine Islands, China, Alaska, Hawaii, Canal Zone, and Mexico. Native troops served in Porto Rico and the

Philippine Islands. Statistics for the native troops—Porto Rican and the Philippine Scouts—have been separately compiled, and whe reference is made to the "Army" in this report the entire Regula Army—officers, white, colored, and native enlisted men—is mean

The size of garrisons in the Tropics, which constituted such a larg percentage of our military forces, renders of more importance tha formerly the general rates for the entire Army.

Charts A, B, C, D, E, F, and G are for the entire Army for th decade 1906-1916. For years prior to 1906 the same data as show in these charts will be found published in the report for 1912, page 14, 15, and 16.

Table No. 76 gives American troops, enlisted men by countrie placed in comparison for 1916.

The admission and noneffective rates for the entire Army and fo the troops in geographical divisions are readily comparable in the following tabulation:

Admission and noneffective rates for Regular Army entire and for troops in geographica divisions for years 1916 and 1915.

	Army (entire).	American troops of the Army (enlisted men).	Enlisted men serving in geographical divisions.								
			United States (at home).	Mexican punitive expedition.	Alaska.	Canal Zone.	Hawaii.	Philippine Islands.		China.	Porto Rico.
								American troops.	Native troops.		
Admission rates:											
1916	726.45	747.59	745.38	810.16	344.97	849.63	514.51	838.60	482.17	890.24	1,037.7
1915	726.19	744.59	704.01	....	386.63	871.00	568.94	990.45	573.84	1,462.17	555.0
Noneffective rates:											
1916	26.99	27.98	30.67	15.62	9.23	28.15	19.22	27.88	14.58	31.31	25.3
1915	25.22	25.88	25.74	....	8.91	26.00	20.44	29.15	15.68	35.00	22.7

The rates are slightly higher this year for the United States and Porto Rico. A decided reduction in admission and noneffective rates occurred in Alaska, Canal Zone, and the Philippine Islands, American and native troops. The most marked reduction is noted in the admission rate and in the noneffective rate for the troops serving in China.

ADMISSION TO SICK REPORT (AMERICAN TROOPS, ENLISTED MEN).

[See Tables Nos. 69 and 76.]

The admissions to sick report during the year 1916 show a slight increase, being 747.59 as compared with 744.59 in 1915. The admission rate for disease only is 619.22; in 1915 it was 610.32. Table No. 81 shows the case admission and total admission rates for all American troops, those in the United States and those in the Philippine Islands, 1904 to 1911, inclusive. The diseases causing the highest admission rates in 1916 were: Venereal, 103.35; diseases of the pharynx, 56.46; diarrhea and enteritis 49.81; bronchitis, 33.88; and influenza, 29.04. The rates just given are for the American enlisted men of the Army and are given first for convenience of comparison. For the entire Army (all officers and enlisted men, including native troops) the ad-ission rate is 726.45. For disease only the rate is 604.04, being ghtly higher both among the American troops and for the entire rmy. This is probably accounted for by the increased rates for arrhea and enteritis.

For venereal diseases the rate for white troops was 100.75, a decrease ver 1915; for colored, 147.10, which was slightly higher than for 915. The rates in the Philippines for these troops were 155.91 and 46.56, respectively, which are lower for both races over the rates of 915 in the Philippines, 177.08 and 258.76, respectively. These high tes are undoubtedly due to social conditions and indicate the ecessity for a change of conditions before rates comparable to those btaining in the United States may be expected. As the rate for 912 for colored troops in the Philippines was 524.06, the highest ecorded in the Army, the present rate is an index of the effectiveness f the measures instituted for improvement in this condition.

The case admission rate for external causes, American troops, ensted men, 1916, was 128.36. In 1915 this rate was 134.27, and in 914, 126.37. The principal causes for this rate were: Traumatism y fall, 30.89; traumatism by cutting or other piercing instruments, 2.65; injuries by animals, 11.38; traumatism by crushing, 8.87; traumatism by firearms, 3.90; burns, 3.56; and poisoning by food, 2.49.

NONEFFECTIVE RATES.

Chart B shows for the entire Army the constantly noneffective rate or all causes from the year 1907 to 1916, inclusive. This rate is the rue measure of noneficiency of the Army from sickness and injury. The rate for disease and injury obtained for the total American troops, nlisted men, for the year 1916 was 27.98, as compared with 25.88 for 915 and 24.02 per 1,000 in 1914. The rate for 1914 is the lowest ecorded noneffective rate in the history of the Army. The highest oneffective rate on record was for the year 1898, when the total rate was 82.83 per 1,000, and the rate for diseases alone was 69.09.

The noneffective rate for all troops in the military service, or the ntire Army, from all causes, was 26.99 (for disease alone, 22.63), which is slightly higher than that for 1915, but still much below the ates for any preceding year, except 1914, when the rate was 23.78. This rate during the past decade shows a steady reduction. In 1906 he noneffective rate was 47.86.

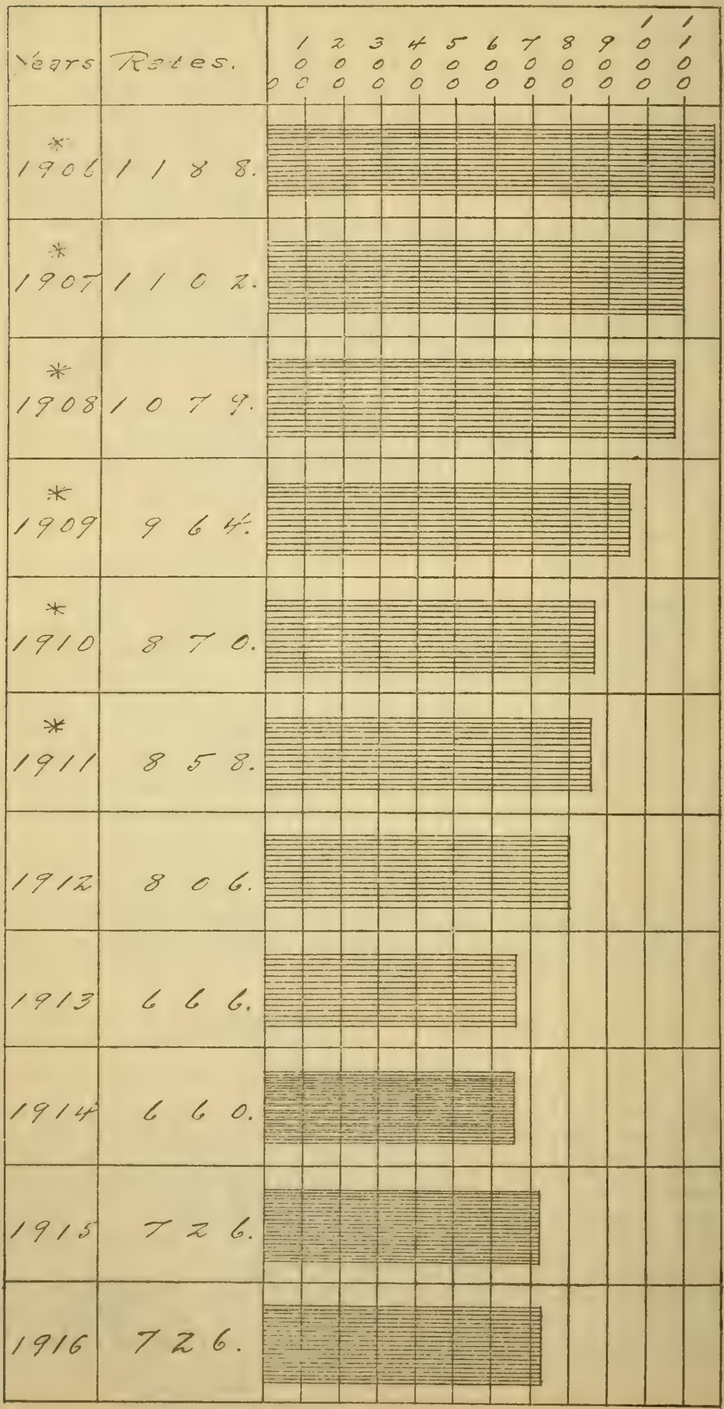
DISCHARGES FOR DISABILITY.

Chart D gives the rates for discharged for disability for the Army rom the year 1907 to 1916, inclusive.

Soldiers stationed outside of the territorial limits of the United States are brought to the United States for discharge, except those belonging to the Porto Rican Regiment and the Philippine Scouts. They are, however, credited in the tabulated reports to the country n which the soldiers were serving when they became disabled, if heir commands were there at date of discharge.

The present system requires that all soldiers certified by medical fficers to be permanently incapacitated for the military service hall be critically examined by a board of two medical officers before

Chart A.—Army. Officers and American and native troops.
[Admission rates, all causes, years 1906-1916.]



* Excess of cases deducted to correspond with years preceding 1906, and 1912 to 1916.

Chart B.—Army. Officers and American and native troops.

[Noneffective rates, all causes, years 1906–1916.]

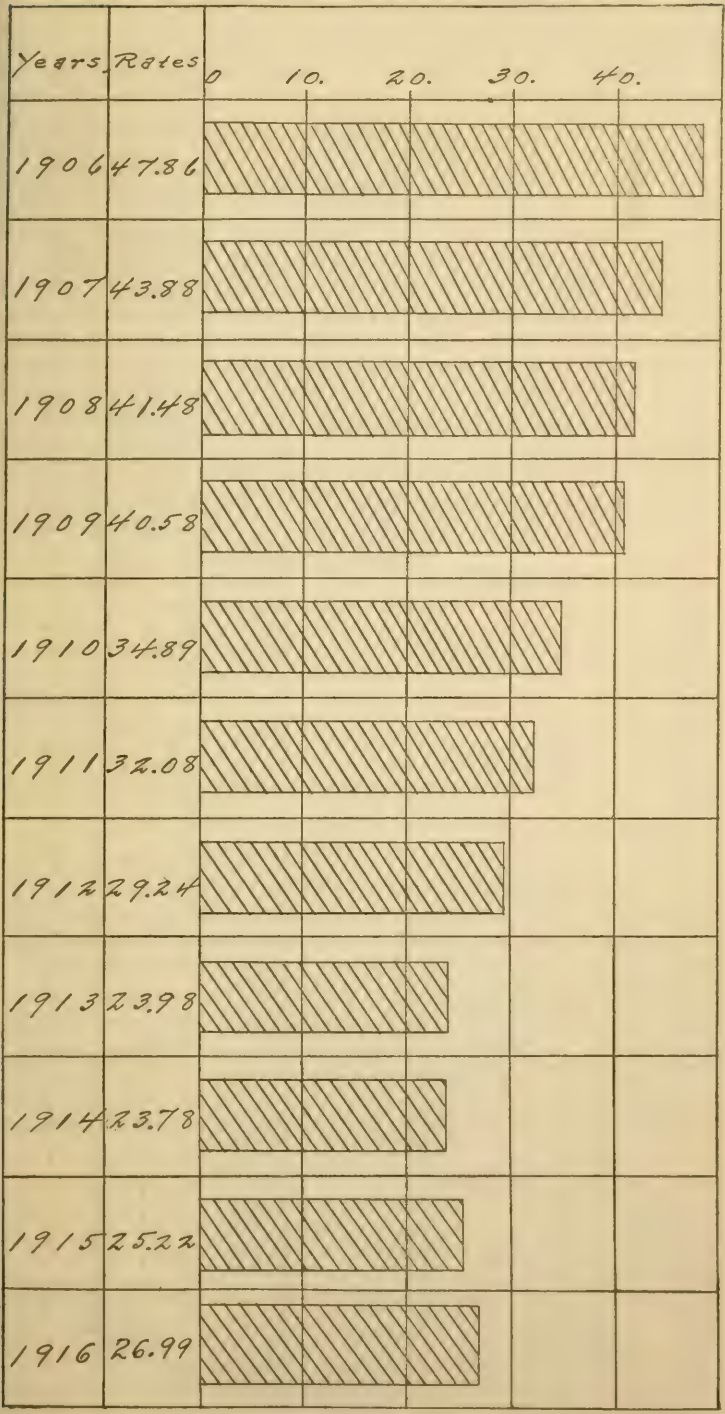
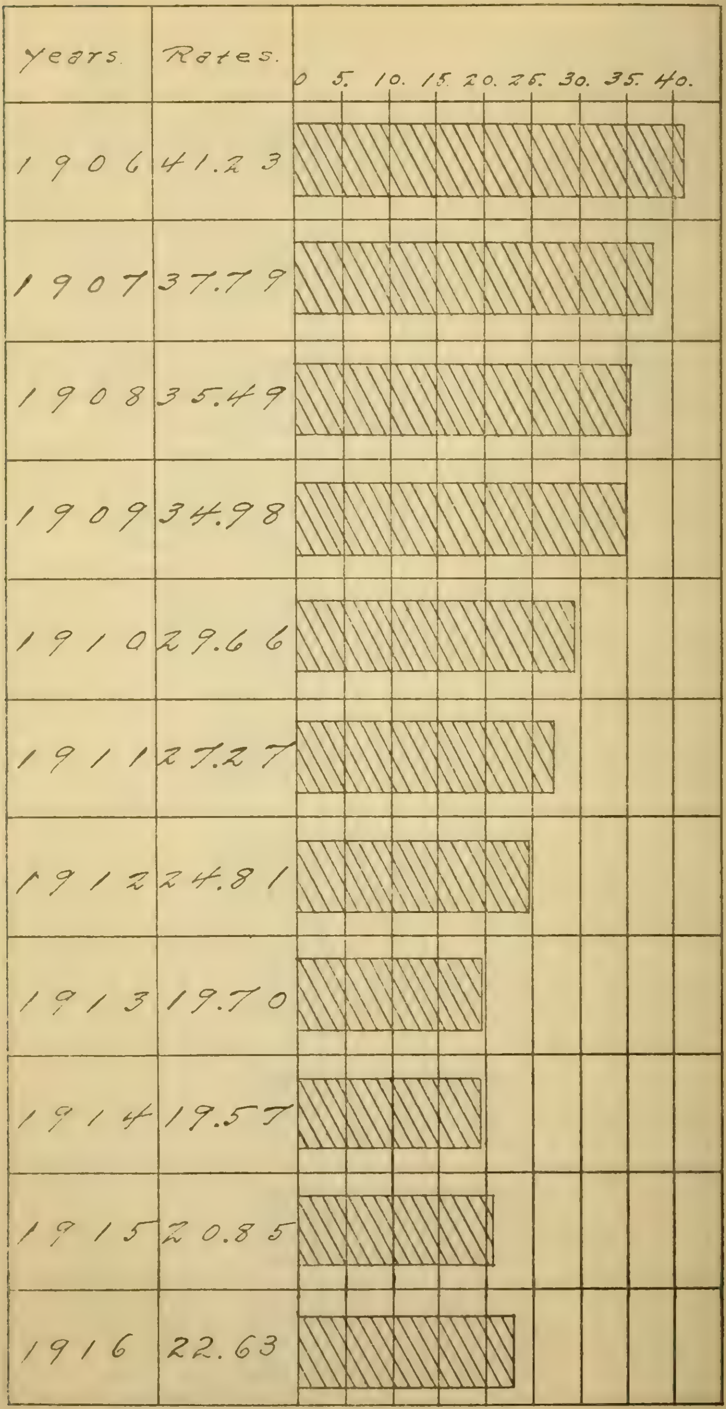


Chart C.—Army. Officers and American and native troops.

[Noneffective rates for disease, years 1906–1916.]



ing discharged. The reports of these go to the department head-uarters from where discharges are ordered, except in the cases of diers at a recruit depot or general hospital, and the reports of ards on insane patients. In the latter circumstances the reports e sent to The Adjutant General of the Army, who directs the dis-harge or issues the order when insane are recommended to be trans-rred to the Government Hospital for the Insane, Washington, D. C.

The discharge rate for 1914 was lower than for any year since the panish-American War, being 12.99 as compared with 16.52 for merican troops for the year 1916. In 1916 there were in the Army 539 men, American troops, discharged for disability as compared th 1,351 during 1915. The rate for 1867 was 13 per 1,000, and e lowest rate from 1894 to 1898, inclusive, was that for 1895, the west on record in the Army, 9.15 per 1,000. The highest rate in y year for discharge for disability was in 1849, when the total rate r discharge was 76.7 per 1,000. The rate for the entire Army, merican and native troops, was 15.98 per 1,000.

The discharge rate for disease in 1916 (American troops) was 14.42 r 1,000, as compared with 12.79 in 1915, and that for external uses was 2.11 in 1916, as compared with 1.47 in 1915. The dis-ses causing the highest discharge rate in 1916 were as foll solute numbers and rates per 1,000 being given:

Discharges, enlisted men (American troops), year 1916.

Disease.	Number.	Ratio.
ntal alienation	271	2.73
berculosis	218	2.20
nereal diseases	159	1.60
t foot	139	1.40
ilepsy	75	.76
ganic heart disease	56	.56

DEATHS FROM ALL CAUSES.

Chart E shows the total death rate for all causes for the Army from e year 1906 to 1916, inclusive. (See also Table 3A.)

For American troops, enlisted, the total rate for 1916 was 5.21 as mpared with the corresponding rate of 4.60 for 1915 and 4.45 for 914. The rate for 1916 is but little above the rate for 1915, but 914 was the lowest on record in the Army. The highest death rate ccurring in any year was in 1849, when the total rate for deaths was 0.2. The death rate for diseases was 2.60 in 1916, 2.60 in 1915, and .36 in 1914. The total number of deaths in 1916 was 516. The llowing diseases caused the highest number of deaths, absolute umbers and rates per 1,000 being given:

Deaths, enlisted men (American troops), year 1916.

Disease.	Number.	Ratio.
uberculosis	40	0.38
neumonia (lobar)	32	.31
rganic heart disease	18	.17
ppendicitis and typhlitis	18	.17
ancer	14	.13
right's disease	12	.12

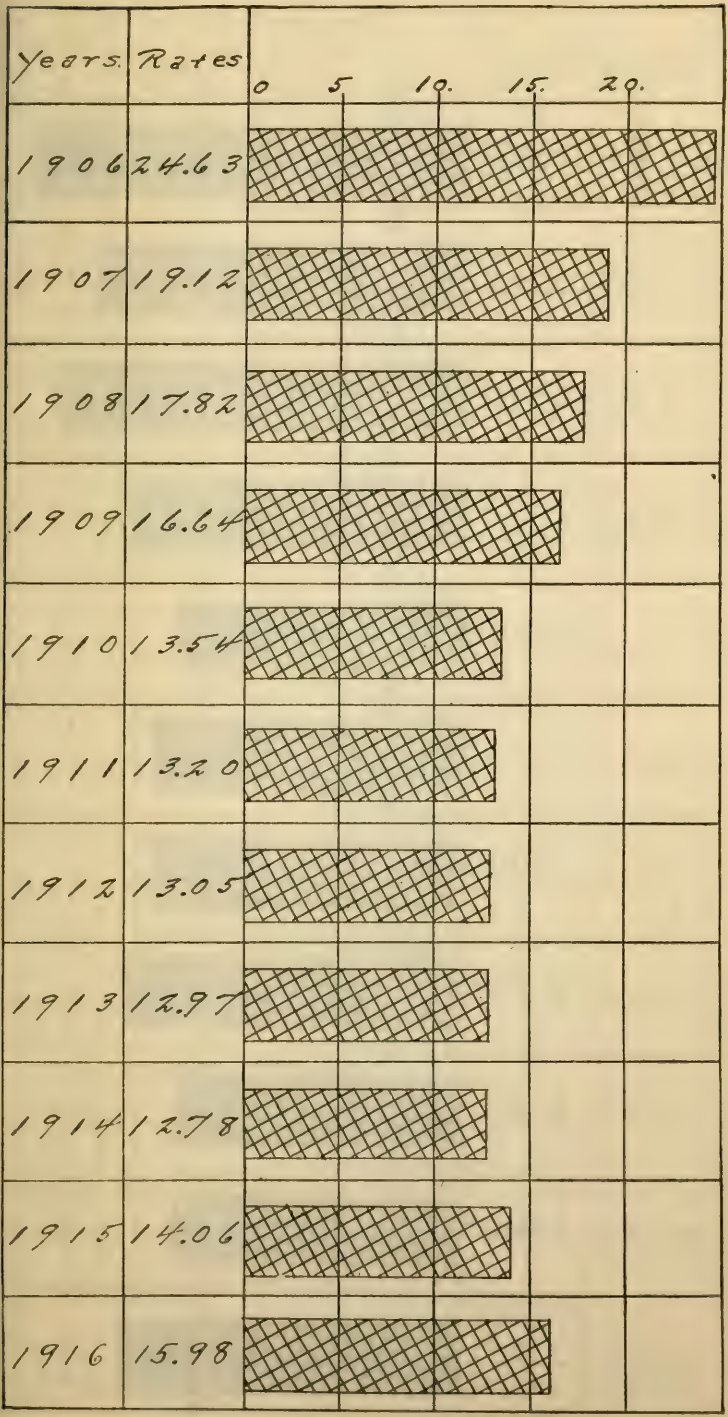
The following were the principal causes of deaths, among office and enlisted men, American troops, from external causes, with th number in each instance: Suicides, 63; drowning, accidental, 4 wounded in action, 36; homicide, 30; traumatism by other crushin 29; traumatism by firearms, 24; and traumatism by fall, 13.

INFLUENCE OF STATION ON TROOPS.

Regarding the comparative healthfulness of the various countrie in which American troops were serving during the year (Army transports being excluded), it will be noted that Alaska maintains th lowest admission and noneffective rates, 344.97 and 9.23 per 1,00 respectively; Canal Zone the lowest death rate, 3.99 per 1,00 China the lowest discharge rate, 13.63, the highest noneffective rat 31.31, the highest admission rate, 890.24, and the highest death rat 10.60. Alaska had the highest discharge rate, 21.48.

Chart D.—Army. Officers and American and native troops.

[Discharge rates, all causes, years, 1906–1916.]



Years.	Rates
1906	24.63
1907	19.12
1908	17.82
1909	16.64
1910	13.54
1911	13.20
1912	13.05
1913	12.97
1914	12.78
1915	14.06
1916	15.98

Chart E.—Army. Officers and American and native troops.

[Death rates, all causes, years 1906-1916.]

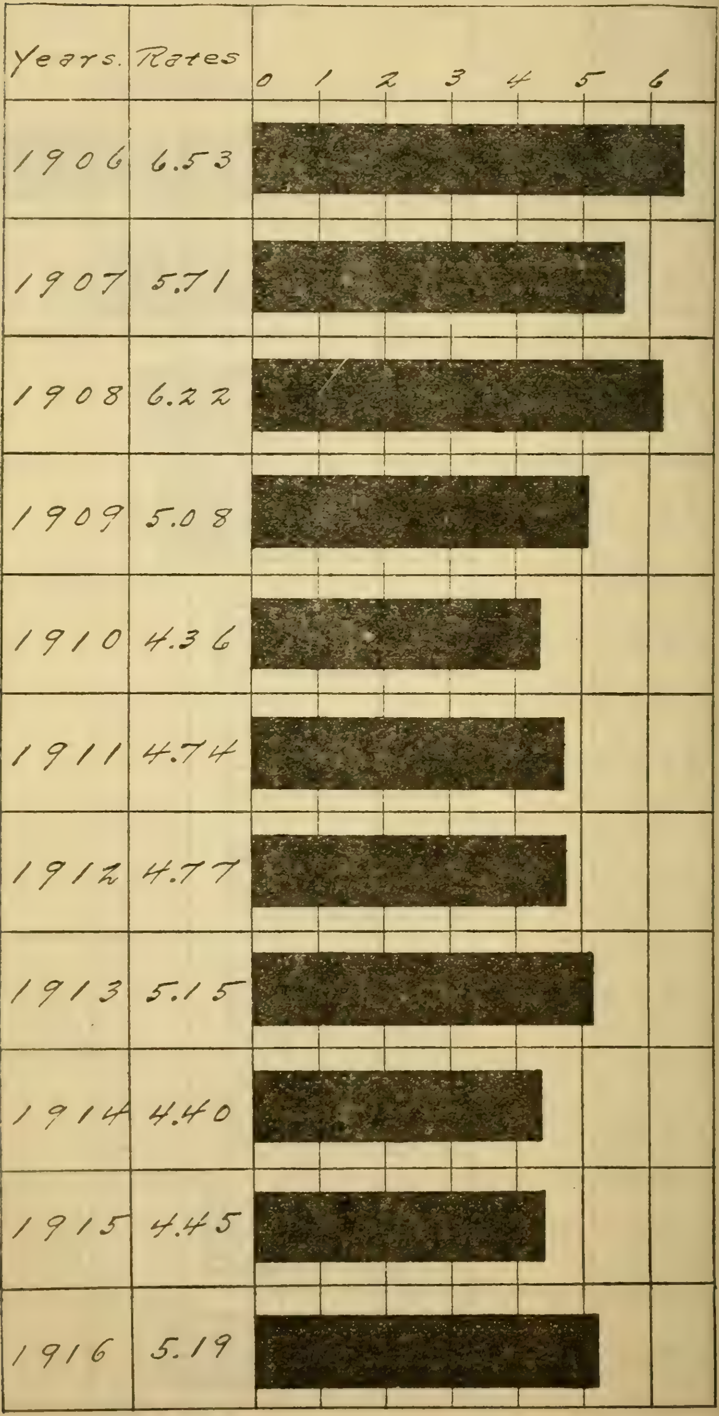
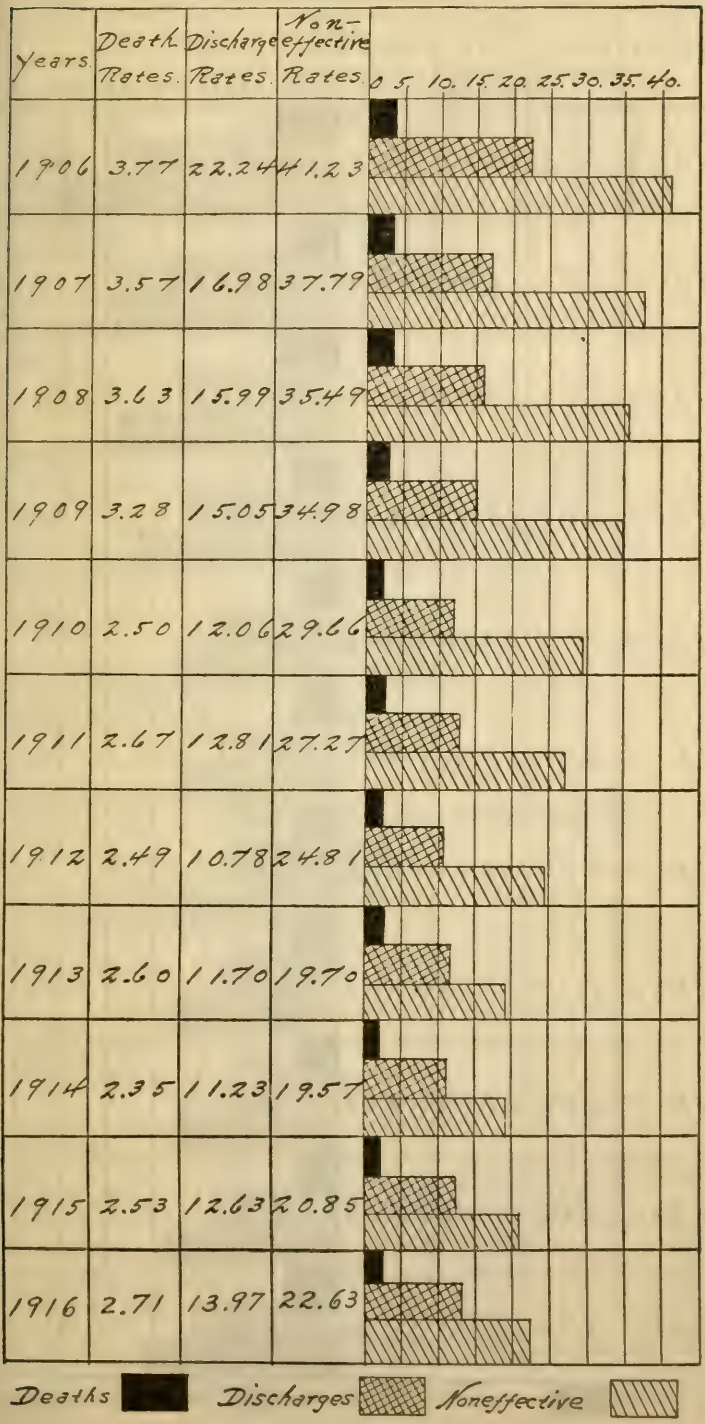


Chart F.—Army. Officers and American and native troops.

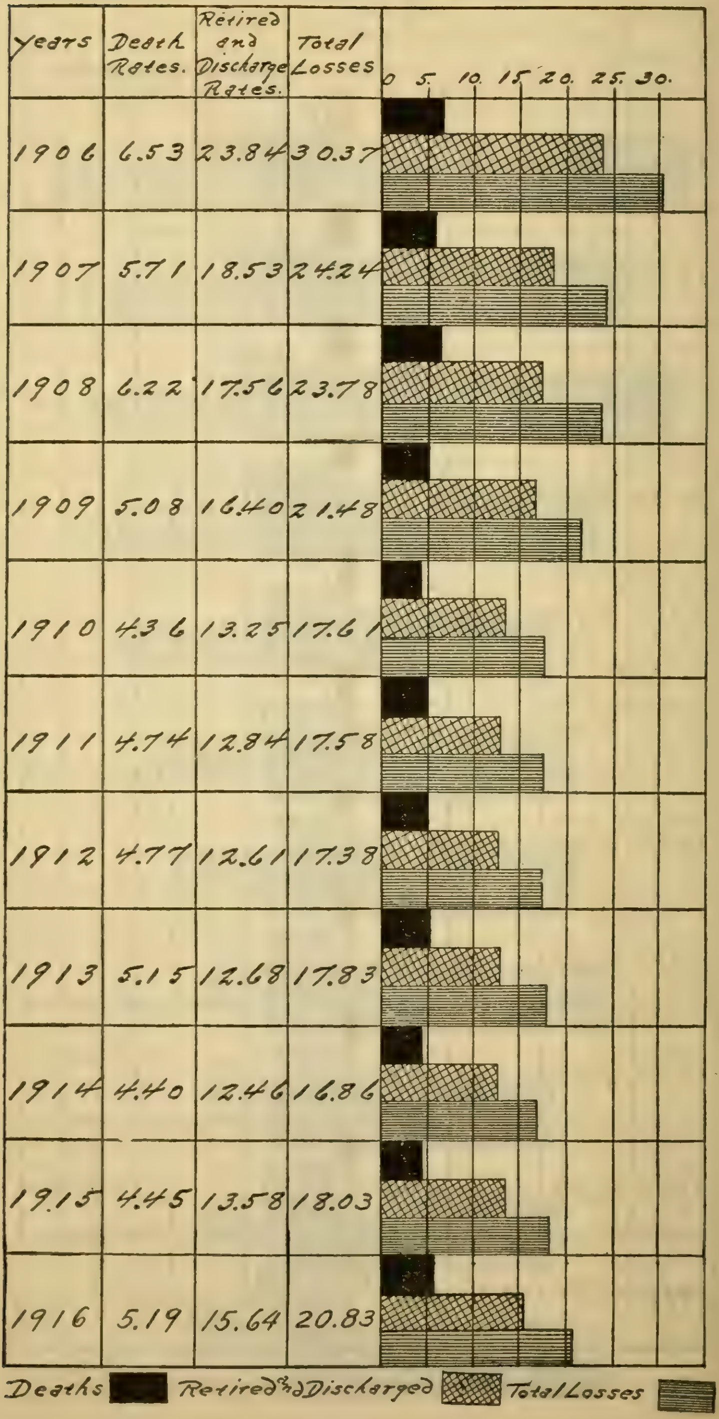
[Death, discharge, and noneffective rates for disease, years 1906-1916.]



Years.	Death Rates.	Discharge Rates.	Non-effective Rates.
1906	3.77	22.24	41.23
1907	3.57	16.98	37.79
1908	3.63	15.99	35.49
1909	3.28	15.05	34.98
1910	2.50	12.06	29.66
1911	2.67	12.81	27.27
1912	2.49	10.78	24.81
1913	2.60	11.70	19.70
1914	2.35	11.23	19.57
1915	2.53	12.63	20.85
1916	2.71	13.97	22.63

Chart G.—Army. Officers and American and native troops.

[Total losses, all causes, years 1906–1916.]



Years	Death Rates.	Retired and Discharge Rates.	Total Losses
1906	6.53	23.84	30.37
1907	5.71	18.53	24.24
1908	6.22	17.56	23.78
1909	5.08	16.40	21.48
1910	4.36	13.25	17.61
1911	4.74	12.84	17.58
1912	4.77	12.61	17.38
1913	5.15	12.68	17.83
1914	4.40	12.46	16.86
1915	4.45	13.58	18.03
1916	5.19	15.64	20.83

Chart H.—Army. Officers and American and native troops.

[Admission, discharge, death, and noneffective rates for disease, by countries, year 1916.]

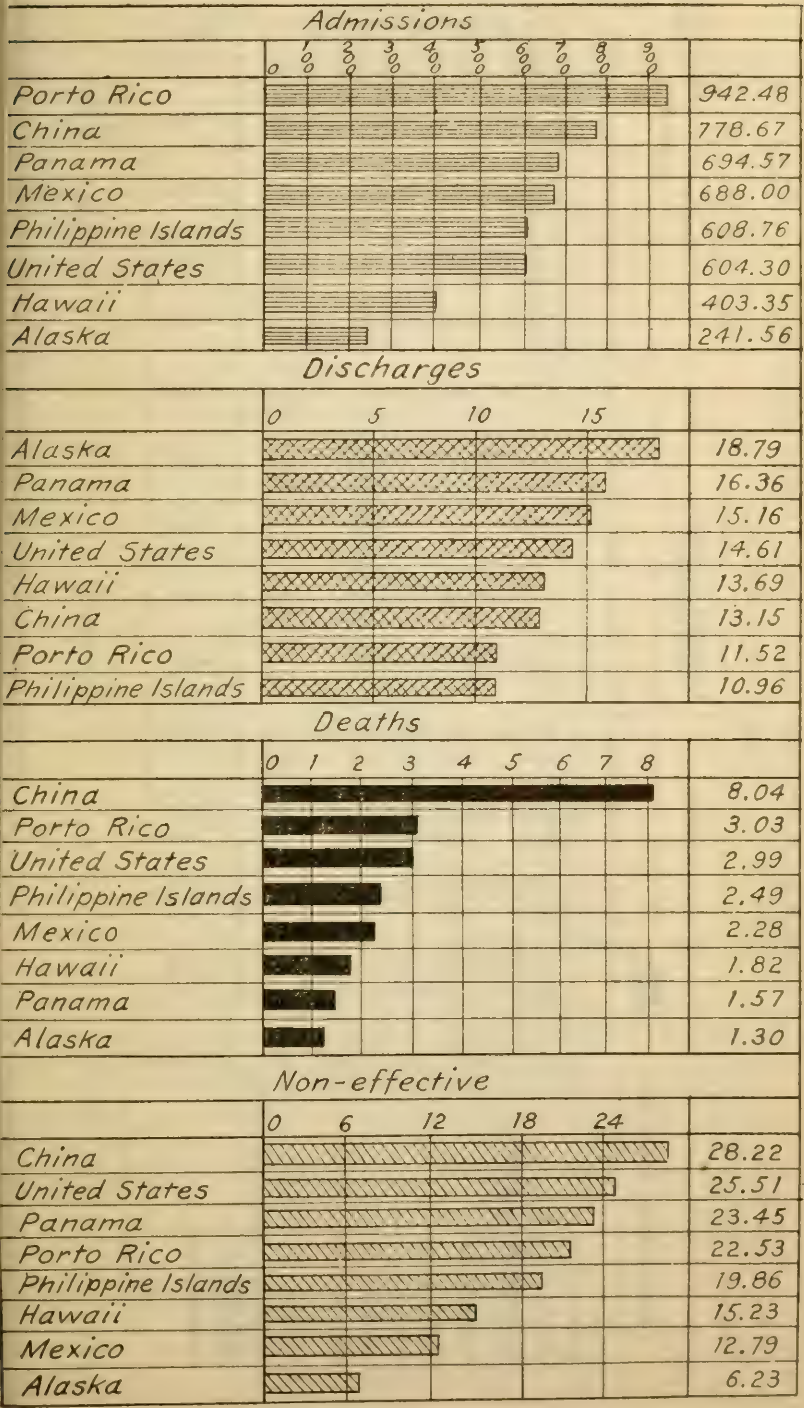


TABLE No. 3.—*Numerical view of the effect of disease and injury on United States troops at home and abroad in the years 1916, compared with corresponding data for the year 1915, by countries (enlisted men only).*

ABSOLUTE NUMBERS.

American troops (enlisted men).	Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
		Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
United States..........1916	61,410	45,774	37,615	8,159	1,029	896	132	315	172	143	1,344	1,068	275	689,437	1,883.71
1915	63,725	44,863	35,972	8,891	879	771	108	349	193	156	1,228	964	264	598,677	1,640.21
Mexican punitive expedition..........1916	8,049	6,521	5,534	987	152	122	30	61	17	44	213	139	74	46,020	125.74
Alaska..........1916	745	257	182	75	16	14	2	5	1	4	21	15	6	2,516	6.87
1915	763	295	227	68	9	9	....	2	1	1	11	10	1	2,482	6.80
Philippine Islands..........1916	11,580	9,711	8,273	1,438	167	152	15	52	32	20	219	184	35	118,177	322.89
1915	11,834	11,721	10,308	1,413	276	262	14	34	18	16	310	280	30	125,910	344.96
China..........1916	1,321	1,176	1,048	128	18	18	....	14	11	3	32	29	3	15,140	41.37
1915	1,335	1,952	1,802	150	13	12	1	6	4	2	19	16	3	17,054	46.72
Hawaii..........1916	8,476	4,361	3,437	924	132	116	16	41	14	27	173	130	43	59,617	162.89
1915	8,572	4,877	3,779	1,098	97	87	10	27	20	7	124	107	17	63,939	175.17
Canal Zone..........1916	6,783	5,763	4,769	994	125	111	14	28	11	17	153	122	31	69,881	190.93
1915	5,721	4,983	4,114	869	77	71	6	14	7	7	91	78	13	54,290	148.74
Army transports..........1916	822	587	560	27	....	....	....	....	....	....	....	....	....	15,052	41.13
1915	1,312	751	718	33	....	....	....	4	3	1	4	3	1	18,471	50.61
Total..........1916	99,186	74,150	61,418	12,732	1,639	1,429	209	516	258	258	2,155	1,688	467	1,015,840	2,775.52
1915	93,262	69,442	56,920	12,522	1,351	1,212	139	436	246	190	1,787	1,458	329	880,823	2,413.21
Regular Army, American troops from 1905 to 1914..........	69,741	680,899	554,775	126,124	11,926	10,669	1,257	3,667	2,025	1,642	15,593	12,694	2,899	9,261,927	2,536.12
Porto Rican troops..........1916	955	991	912	79	11	11	....	4	3	1	16	15	1	8,862	24.21
1915	681	378	340	38	5	5	....	3	2	1	8	7	1	5,662	15.51
Philippine Scouts..........1916	5,579	2,690	2,271	419	39	36	3	15	13	2	54	49	5	29,767	81.33
1915	5,505	3,159	2,657	502	63	58	5	14	9	5	77	67	10	31,506	86.31

PROPORTIONATE NUMBERS (ENLISTED MEN ONLY).

[Ratio per 1,000 of mean strength.]

American troops (enlisted men).	Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Constantly non-effective.	Days treated.	
		Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Inju		Each soldier.	Each case
United States 1916	61,410	745.38	612.52	132.86	16.74	14.59	2.15	5.13	2.80	2.33	21.87	17.39	4.48	30.67	11.23	15.06
1915	63,725	704.01	564.49	139.52	13.60	11.93	1.67	5.40	2.99	2.41	19.00	14.92	4.08	25.74	9.39	13.34
Mexican punitive expedition 1916	8,049	810.16	687.54	122.62	18.89	15.16	3.73	7.58	2.11	5.47	26.47	17.27	9.20	15.62	5.72	7.06
Alaska 1916	745	344.97	244.30	100.67	21.48	18.79	2.68	6.71	1.34	5.37	28.19	20.13	8.05	9.23	3.38	9.79
1915	763	386.63	297.51	89.12	11.80	11.80	....	2.62	1.31	1.31	14.42	13.11	1.31	8.91	3.25	8.41
Philippine Islands 1916	11,580	838.60	714.42	124.18	14.42	13.13	1.30	4.49	2.76	1.73	18.91	15.89	3.03	27.88	10.21	12.17
1915	11,834	990.45	871.05	119.40	23.22	22.04	1.18	2.86	1.51	1.35	26.08	23.55	2.53	29.15	10.64	10.74
China 1916	1,321	890.24	793.34	96.89	13.63	13.63	....	10.60	8.33	2.27	24.23	21.96	2.27	31.31	11.46	12.87
1915	1,335	1,462.17	1,349.81	112.36	9.74	8.99	.75	4.49	3.00	1.50	14.23	11.99	2.25	35.00	12.77	8.74
Hawaii 1916	8,476	514.51	405.50	109.01	15.57	13.69	1.89	4.84	1.65	3.19	20.41	15.34	5.08	19.22	7.03	13.67
1915	8,572	568.94	440.85	128.09	10.92	9.79	1.13	3.04	2.25	.79	13.96	12.04	1.92	20.44	7.46	13.11
Canal Zone 1916	6,783	849.63	703.08	146.54	18.43	16.36	2.06	3.99	1.57	2.42	22.42	17.93	4.48	28.15	10.30	12.13
1915	5,721	871.00	719.10	151.90	13.03	12.01	1.02	2.37	1.18	1.18	15.40	13.19	2.20	26.00	9.49	10.89
Army transports 1916	822	714.11	681.27	32.85	....	....	....	....	....	....	....	....	....	50.03	18.31	25.64
1915	1,312	572.41	547.26	25.15	....	....	....	3.05	2.29	.76	3.05	2.29	.76	38.57	14.08	24.59
Total 1916	99,186	747.59	619.22	128.36	16.52	14.42	2.11	5.21	2.60	2.60	21.73	17.02	4.71	27.98	10.24	13.70
1915	93,262	744.59	610.32	134.27	14.26	12.79	1.47	4.60	2.60	2.01	18.86	15.39	3.48	25.88	9.44	12.68
Regular Army, American troops, from 1905 to 1914	69,741	976.32	795.47	180.85	16.81	15.04	1.77	5.17	2.85	2.32	21.98	17.89	4.09	36.36	13.28	13.60
Porto Rican troops 1916	955	1,037.70	954.97	82.72	12.57	12.57	....	4.19	3.14	1.05	16.76	15.71	1.05	25.35	9.28	8.94
1915	681	555.07	499.27	55.80	7.34	7.34	....	4.41	2.94	1.47	11.75	10.28	1.47	22.78	8.31	14.98
Philippine Scouts 1916	5,579	482.17	407.06	75.10	6.99	6.45	.54	2.69	2.33	.36	9.68	8.78	.90	14.58	5.34	11.06
1915	5,505	573.84	482.65	91.19	11.44	10.53	.91	2.54	1.63	.91	13.98	12.16	1.82	15.68	5.72	9.97

TABLE No. 3A.—*Numerical view of the effect of disease and injury on the Army, serving at home and abroad, in the year 1916, compared with corresponding data for the year 1915, by countries, (officers and enlisted men, Porto Ricans and Philippine Scouts).*

PROPORTIONATE NUMBERS (ENTIRE ARMY).

[Ratio per 1,000 of mean strength.]

The Army, officers and enlisted men, including Porto Ricans and Philippine Scouts.		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.		
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Constantly noneffective.	Days treated. Each soldier.	Days treated. Each case.
United States	1916	64,466	733.29	604.30	128.98	16.74	14.59	2.15	5.37	2.99	2.38	22.11	17.58	4.53	30.58	11.19	15.26
	1915	66,789	696.04	559.43	136.61	13.60	11.93	1.67	5.30	2.95	2.35	18.90	14.88	4.02	25.77	9.41	13.51
Mexican punitive expedition	1916	8,343	810.26	688.00	122.26	18.89	15.16	3.73	7.79	2.28	5.51	26.68	17.44	9.24	15.41	5.64	6.96
Alaska	1916	770	338.96	241.56	97.40	21.48	18.79	2.68	6.49	1.30	5.19	27.97	20.09	7.87	9.01	3.30	9.72
	1915	787	378.65	292.24	86.40	11.80	11.80	....	2.54	1.27	1.27	14.34	13.07	1.27	8.71	3.18	8.40
Philippine Islands	1916	17,823	715.87	608.76	107.11	12.01	10.96	1.05	3.71	2.49	1.22	15.72	13.45	2.27	23.27	8.52	11.90
	1915	18,005	853.65	743.46	110.19	19.49	18.40	1.09	2.77	1.61	1.16	22.26	20.01	2.25	24.72	9.02	10.57
China	1916	1,369	874.36	778.67	95.69	13.15	13.15	....	10.23	8.04	2.19	23.38	21.19	2.19	30.57	11.19	12.80
	1915	1,378	1,438.32	1,328.74	109.58	9.74	8.99	.75	4.35	2.90	1.45	14.09	11.89	2.20	34.45	12.57	8.74
Hawaii	1916	8,789	511.55	403.35	108.20	15.57	13.69	1.89	4.99	1.82	3.18	20.56	15.51	5.07	19.11	6.99	13.67
	1915	8,876	568.50	441.30	127.20	10.92	9.79	1.13	3.26	2.17	1.09	14.18	11.96	2.22	20.24	7.39	12.99
Canal Zone	1916	7,023	838.67	694.57	144.10	18.43	16.36	2.06	3.99	1.57	2.42	22.42	17.93	4.48	27.55	10.08	12.02
	1915	5,903	859.22	709.81	149.41	13.03	12.01	1.02	2.46	1.31	1.15	15.49	13.32	2.17	25.63	9.35	10.89
Porto Ricans	1916	991	1,022.20	942.48	79.72	12.57	12.57	....	4.04	3.03	1.01	16.61	15.60	1.01	24.91	9.12	8.92
	1915	719	552.16	496.52	55.63	7.34	7.34	....	4.17	2.78	1.39	11.51	10.12	1.39	22.36	8.16	14.78
Transports	1916	880	671.59	639.77	31.82	....	....	....	....	....	....	....	....	....	....	....	....
	1915	1,385	545.85	520.58	25.27	....	....	....	2.89	2.17	.72	2.89	2.17	.72	36.32	13.49	24.71
The Army	1916	110,454	726.45	604.04	122.40	15.98	13.97	2.01	5.19	2.71	2.48	21.17	16.68	4.49	26.99	9.91	13.65
	1915	103,842	726.19	597.02	129.16	14.06	12.63	1.43	4.45	2.53	1.92	18.51	15.16	3.35	25.22	9.20	12.67

INFLUENCE OF ARMS OF SERVICE.

The admission rate for disease in 1916 was highest for the Field rtillery, being 908.60, while the Ordnance Corps had the lowest, 32.26 per 1,000.

The death rate was highest in the Engineer Corps, 8.25, and lowest ı the Signal Corps, 3.14, the Field Artillery being next to the lowest ith 3.94 per 1,000.

ABLE No. 4.—*Influence of disease on enlisted American troops of the Army, by arms of service, for the year 1916.*

Arms of service.	Mean strength.	Admitted.	Discharged on certificate of disability.	Died.	Constantly noneffective.	Ratio per 1,000 of mean strength.			
						Admitted.	Discharged on certificate of disability.	Died.	Constantly noneffective.
nfantry	35,458	26,272	637	173	991.53	740.93	17.96	4.88	27.96
avalry	16,070	13,993	245	120	523.58	870.75	15.25	7.47	32.58
oast Artillery	18,630	12,432	281	76	464.77	667.31	15.08	4.08	24.95
ield Artillery	6,094	5,537	95	24	197.12	908.60	15.59	3.94	32.35
ngineers	1,939	1,582	52	16	77.74	815.88	26.82	8.25	40.09
rdnance	744	396	4	4	13.89	532.26	5.38	5.38	18.67
ignal Corps	1,590	892	24	5	34.91	561.01	15.09	3.14	21.96
ospital Corps	5,036	3,706	114	26	129.01	735.90	22.64	5.16	25.62
thers	13,625	9,340	187	72	343.00	685.50	13.72	5.28	25.17
Total	99,186	74,150	1,639	516	2.775.55	747.59	16.52	5.20	27.98

The following table shows the relative frequency of the occurrence of the more important diseases for the various arms of service, figure 1 indicating the highest ratio and figure 8 the lowest in each case for each arm:

TABLE No. 5.—*Relative frequency of occurrence of certain important diseases, by arm of service, in the Army, among American troops, enlisted men, year 1916.*

Arms of service.	Most important diseases.											
	Venereal.	Tonsilitis and pharyngitis.	Diarrhea and enteritis.	Malaria.	Bronchitis.	Alcoholism.	Rheumatism (articular).	Dysentery.	Tuberculosis.	Typhoid fever.	Pneumonia (lobar).	Injuries.
Infantry	1	4	3	4	7	6	3	6	2	5	3	5
Cavalry	4	3	1	3	4	8	1	3	7	1	1	1
Coast Artillery	6	5	7	5	3	3	2	8	5	3	5	4
Field Artillery	3	1	2	2	2	7	7	4	6	4	4	2
Engineers	2	7	5	1	6	5	6	5	4	......	7	3
Ordnance	8	8	8	8	8	2	4	7	8	......	6	6
Signal Corps	7	6	6	7	5	4	8	1	3	......	8	7
Hospital Corps	5	2	4	6	1	1	5	2	1	2	2	8

Chart I.—United States and Philippine Islands. Officers and American and native troops

[Noneffective rates for special diseases, year 1916.]

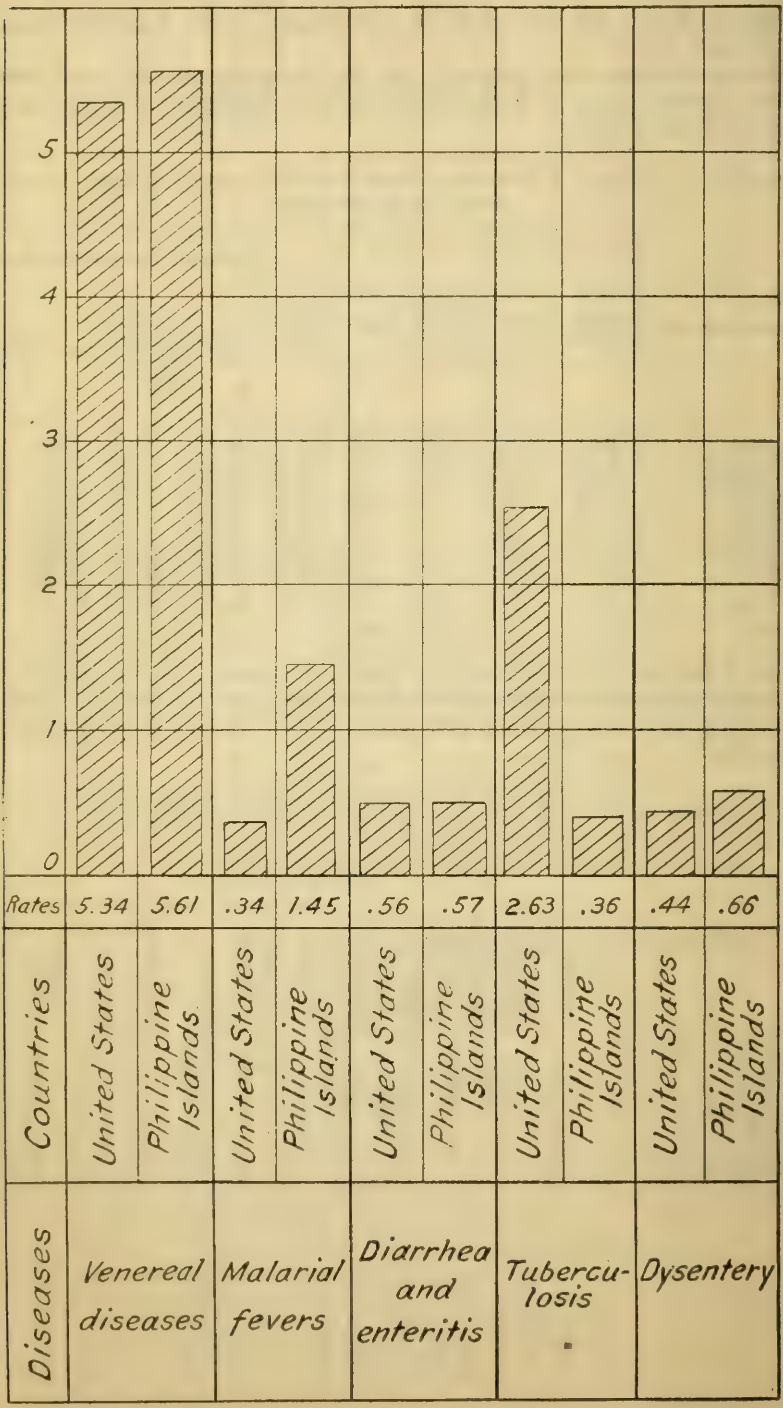


Chart I^{1}.—Army. Officers and American and native troops.

[Admission rates for malarial fevers, years 1906-1916.]

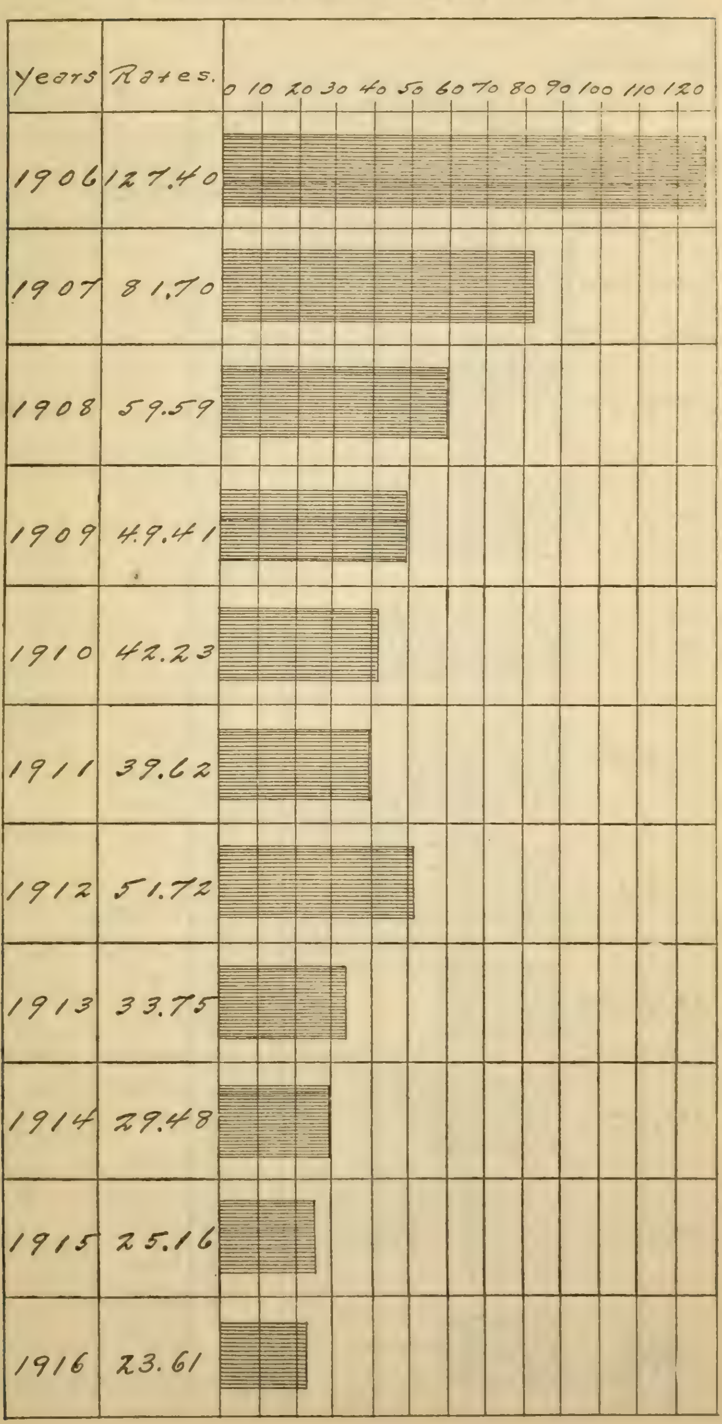


Chart K.—Army. Officers and American and native troops.

[Noneffective rates for malarial fevers, years 1906–1916.]

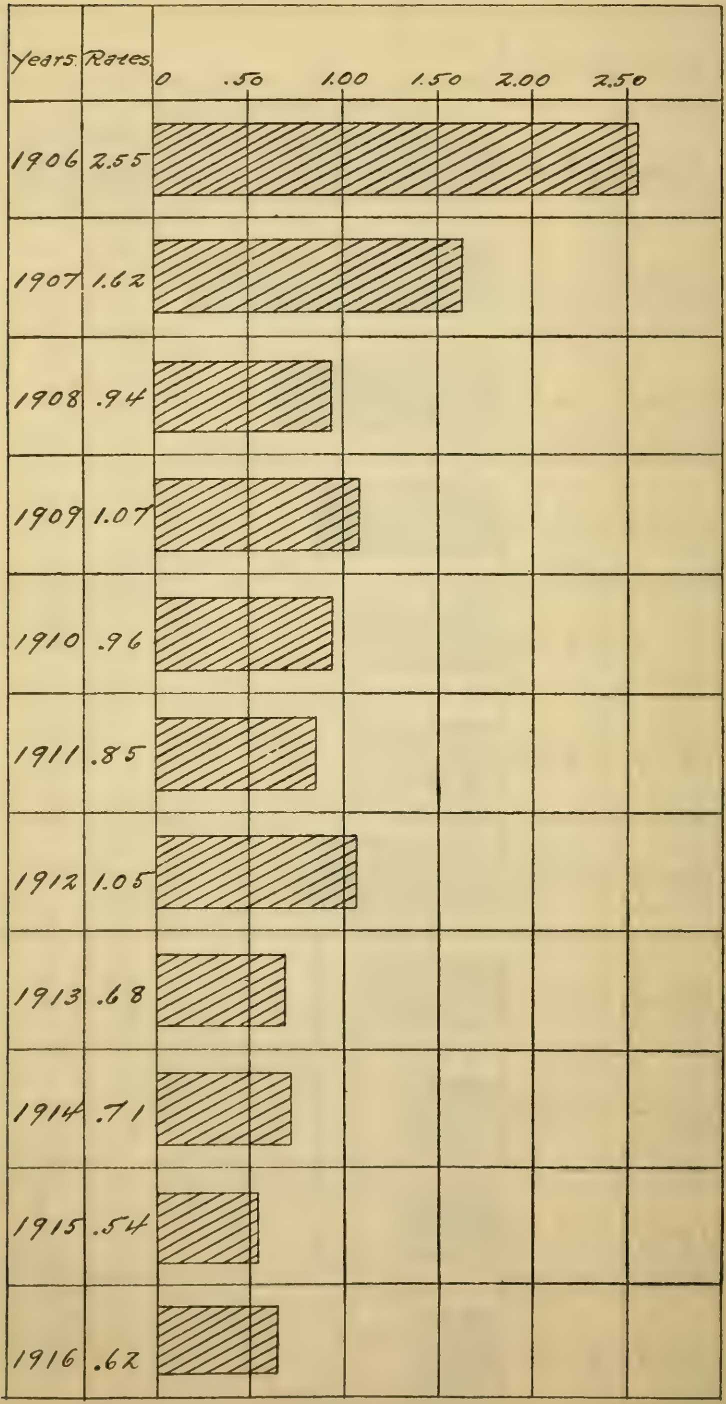
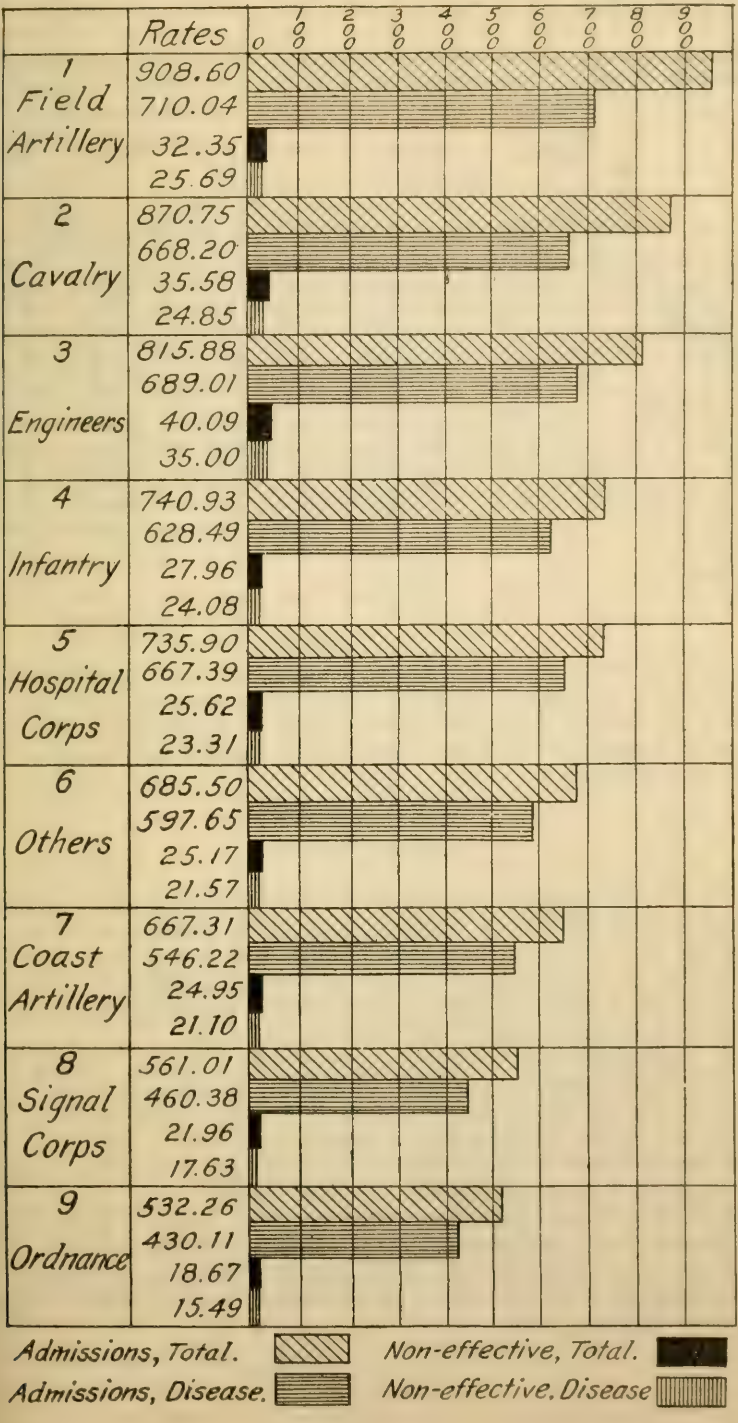


Chart L.—Army. Total American enlisted men.

[Admission and noneffective rates, all causes and disease, by arms of service, year 1916.]



The following tabulation exhibits the admission and noneffecti rates for the different races for the principal diseases causing t greatest nonefficiency:

Diseases causing the greatest amount of nonefficiency in the Army, arranged in accorda therewith, together with their admission rates, in ratios per 1,000 of mean strength.

	Army, total enlisted.		White.		Colored.		Porto Ricans.		Philippine Scouts.	
	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Adn sio rate
Venereal diseases	5.41	99.30	7.70	100.75	8.48	147.10	5.02	83.77	1.79	29
Tuberculosis	1.70	3.45	2.40	3.41	3.27	4.32	.39	5.24	.36	3
Mental alienation	.79	3.55	1.15	3.70	1.08	4.14	.19	1.05	.12	
Appendicitis and typhlitis	.67	9.42	1.02	10.14	.46	6.11	.10	1.05	.16	2
Bronchitis	.65	33.64	.94	34.66	.41	20.86	.27	8.38	.74	33
Malaria	.63	24.25	.84	22.94	.50	18.88	1.67	72.25	1.14	43
Diarrhea and enteritis	.62	48.79	.91	49.00	.57	63.66	.86	51.31	.33	29
Tonsillitis, acute follicular	.57	39.80	.85	41.82	.70	45.67	.17	10.47	.07	5
Measles	.53	12.48	.84	13.98	.03	.90	....	....	.06	
Hernia	.46	4.63	.69	4.97	.51	3.78	....	....	.05	
Influenza	.44	29.75	.63	30.27	.16	8.27	3.43	255.50	.06	3
Acute abscess and cellulitis	.44	16.03	.60	15.69	.45	11.14	.67	38.74	.64	22
Dysentery	.44	6.18	.62	6.17	.65	7.73	.15	5.24	.22	4
Articular rheumatism, acute and chronic	.36	5.56	.50	5.76	.63	4.68	.38	4.19	.16	3

It will be seen from the above tabulation that the white troo have next to the highest rate for venereal diseases, 100.75 per 1,00 the colored troops the highest, with 147.10, while the native troo (Porto Ricans and Philippine Scouts) had the lowest rate, 83.77 a 29.93, respectively.

INFLUENCE OF RACE.

[See Tables 67 and 75.]

Table No. 67 shows that the Porto Rican troops had the highe admission rate, while the colored troops had the highest death a discharge rates. The Philippine Scouts had the lowest admissi and discharge rate, and lowest death and noneffective rates. T admission rates were: White troops, 749.59; colored, 713.90; Phili pine Scouts, 482.17; and Porto Ricans, 1,037.70.

The constantly noneffective rates were: Colored, 32.03; whi 39.17; Porto Ricans, 25.35; and Philippine Scouts, 14.58 per 1,0

The discharge rates were: Colored, 22.12; white, 16.19; Phili pine Scouts, 6.99; and the Porto Ricans, 12.57 per 1,000.

The death rates were: Colored, 7.73; white, 5.06; Porto Rica 4.19; and the Philippine Scouts, 2.69 per 1,000.

The rates for total losses were: Colored, 29.85; white, 21.25; Phili pine Scouts, 9.68; and Porto Rican troops, 16.76 per 1,000.

The average number of days lost for each case treated w Porto Ricans, 8.94; colored, 16.42; white, 13.54; and Philippi Scouts, 11.06 per 1,000.

COMPARISON WITH FOREIGN ARMIES.

As in previous years it has been customary to make an effort to mpare the health conditions in the United States with the same nditions in the armies of Great Britain, the continental powers, d Japan. Owing to the unusual conditions which have existed roughout the calendar year 1916 in Europe, no effort at comparison made in this report.

SURGICAL OPERATIONS.

Table No. 66 shows the principal surgical operations performed by edical officers upon the personnel of the Army. Operations upon milies of officers and enlisted men and other civilians who are en-tled to treatment at Army hospitals at the various posts are not cluded. During the year 1916 there were 10,129 operations per-rmed, of which 10,037 were successful, 31 partially successful, and failures; 52 deaths resulted. Of the anesthetics used, ether was ore prominent, being used in 4,947 cases, chloroform in 99, local esthesia in 3,968, chloroform and ether or gas in 97, and other neral anesthetics in 318 cases. One thousand two hundred and irty-seven appendectomies were performed, 13 resulting in death; 3 herniotomies, and 9 operations for goiter.

UNITED STATES (CONTINENTAL) EXCLUSIVE OF ALASK

ADMISSION RATE.

Cases only are counted; readmissions for the same illness are omi ted in counting cases Table No 81 shows case admissions and tot admissions for enlisted American troops of the Army for the Unit States and American troops, Philippine Islands, 1904 to 1911, i clusive

Admission rates for disease and injuries and total noneffective rate for the United Stat continental (excluding Alaska), years 1911–1916 (enlisted American troops).

Year.	Ratio per 1,000 of mean strength.					
	Admission rate.			Non-effective rate, all causes.	Highest noneff tive rate for d ease.	
	All causes.	For disease.	External causes.		Venereal.	Tuber culosi
1916	745.38	612.52	132.86	30.67	5.58	2.
1915	704.01	564.49	139.52	25.74	3.99	2.
1914	629.84	498.83	131.01	23.37	3.75	2.
1913	619.90	487.94	131.96	22.94	3.58	2.
1912	738.70	596.94	141.76	27.15	5.96	1.
1911	837.00	680.00	157.00	31.40	8.82	1.

The admission rate for 1916, 745.38, is slightly higher than f the preceding year. This rate is compared with the rate for fi years preceding in the total above. The noneffective is higher tha the average for preceding five years.

The mean strength of all troops serving in the United States, bot Regulars and National Guard, year 1916, was 130,394. The cas rate for these troops was 911.72 for all causes, as against 704.01 f Regulars in 1915. The noneffective rate was 25.07; the discharg rate was 15.58 and the death rate was 4.21, as against 25.74, 13.6 and 5.40, respectively, for Regulars in the previous year.

DISCHARGES FOR DISABILITY.

The disability-discharge rate for the United States for 1916 wa 16.76 per 1,000, as compared with 13.60 for 1915, 14.82 for 191 13.45 for 1913, 14.48 for 1912, and 15 for 1911. It will be note that the rate for 1916 is considerably higher than for 1915.

BLE No. 7.—*Discharges for disability. year 1916. United States continental (excluding Alaska).*

Causes of discharge.	Number discharged.	Percentage of total discharges for diseases or external causes.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in in line of duty.
DISEASES.							
vous system and organs of special sense.	308	34.34	56	231	21	2	50
vous system	261	29.10	39	201	21	2	46
Mental alienation	164	18.28	15	132	17	1	23
Dementia precox	94	10.48	9	82	3	1	13
Defective mental development	23	2.56	....	23	....	....	3
General paralysis of the insane	14	1.56	....	....	14	....	....
Psychosis, manic depressive	6	.67	3	3	....	....	....
Psychosis, traumatic	2	.22	1	1	....	....	....
Psychasthenia	1	.11	....	1	....	....	....
All other forms	24	2.68	2	22	....	....	7
lepsy	56	6.24	3	53	....	1	20
ers of the nervous system	41	4.57	21	16	4	....	3
Hysteria	10	1.11	....	10	....	....	2
Neuritis	9	1.00	6	3	....	....	1
Neurasthenia	8	.89	6	2	....	....	....
Others	14	1.56	9	1	4	....	....
eases of the eye	25	2.79	8	17	....	....	1
Amblyopia	5	.56	1	4	....	....	....
Retinitis	4	.45	3	1	....	....	....
Astigmatism	3	.33	1	2	....	....	....
Conjunctivitis, chronic	2	.22	1	1	....	....	....
Trachoma	2	.22	....	2	....	....	....
Thoroiditis, chronic	2	.22	....	2	....	....	1
Asthenopia	1	.11	....	1	....	....	....
Cataract	1	.11	1	....	....	....	....
Optic neuritis	1	.11	1	....	....	....	....
Others of the eye	4	.45	....	4	....	....	....
eases of the ear	22	2.45	9	13	....	....	....
Otitis media	19	2.12	8	11	....	....	3
Others of the ear	3	.33	1	2	....	....	....
eral diseases	268	29.88	122	78	68	4	19
Tuberculosis	119	13.27	99	20	....	3	5
Of the lungs	114	12.71	94	20	....	1	5
Of other organs	5	.56	5	....	....	2	....
Venereal diseases	100	11.15	....	41	59	....	6
Gonorrhea and results	60	6.69	....	22	38	....	3
Arthritis	47	5.24	....	18	29	....	3
Other infections	13	1.45	....	4	9	....	....
Syphilis	40	4.46	....	19	21	....	3
Tertiary	26	2.90	....	11	15	....	1
Secondary	12	1.34	....	6	6	....	1
Hereditary	1	.11	....	1	....	....	....
Period undetermined	1	.11	....	1	....	....	1
Articular rheumatism	11	1.23	6	5	....	1	1
Chronic	9	1.00	4	5	....	....	1
Acute	2	.22	2	....	....	1	....
Exophthalmic goiter	9	1.00	3	6	....	....	1
Chronic alcoholism	9	1.00	....	1	8	....	1
Diabetes	7	.78	5	2	....	....	1
Dysentery, chronic, entamœbic	4	.45	2	2	....	....	2
Cancer	3	.33	3	....	....	....	....
Measles	2	.22	2	....	....	....	2
Leukemia	1	.11	1	....	....	....	....
Drug habit (morphine)	1	.11	....	....	1	....	....
Obesity	1	.11	....	1	....	....	....
Diabetes insipidus	1	.11	1	....	....	....	....
eases of the bones and of the organs of comotion	129	14.38	31	98	....	....	7
Flat foot	87	9.70	5	82	....	....	5
Diseases of the joints	21	2.34	16	5	....	....	1
Arthritis	14	1.56	11	3	....	....	1
Synovitis	7	.45	3	1	....	....	....
Ankylosis	3	.33	2	1	....	....	....
Diseases of the bones	6	.67	3	3	....	....	1
Periostitis and osteitis	4	.45	2	2	....	....	1
Osteoma	1	.11	....	1	....	....	....
Osteomyelitis	1	.11	1	....	....	....	....

Table No. 7.—*Discharges for disability, year 1916, United States contineutal (exclud Alaska)*—Continued.

Causes of discharge.	Number discharged.	Percentage of total discharges for diseases or external causes.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged disability be assignmen	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in li of du
DISEASES—continued.							
Diseases of the bones and of the organs of locomotion—Continued.							
Others of the order	15	1.67	7	8			
Hallux valgus	4	.45	1	3			
All others	11	1.23	6	5			
Diseases of the digestive system	60	6.69	32	26	2		
Hernia	28	3.12	16	11	1		
Inguinal	27	3.01	15	11	1		
Ventral	1	.11	1				
Abdominal adhesions following operations	7	.78	3	4			
Gastritis, chronic	5	.56	1	4			
Appendicitis, chronic	3	.33	1	2			
Others of the stomach	3	.33	3				
Ulcer of the stomach, chronic	2	.22	2				
Gastro enteritis, chronic	2	.22	1	1			
Sprue	2	.22	1	1			
Cholecystitis, chronic	2	.22	1	1			
Others of the order	6	.67	3	2	1		
Diseases of the circulatory system	55	6.13	15	40			
Organic heart disease	40	4.46	13	27			
Valvular disease	22	2.45	6	16			
Endocarditis, chronic	7	.78	3	4			
Cardiac hypertrophy	3	.33	1	2			
Myocarditis, chronic	3	.33	2	1			
Cardiac dilatation	2	.22	1	1			
Others	3	.33		3			
Diseases of the veins	6	.67		6			
Varicose veins	4	.45		4			
Hemorrhoids	1	.11		1			
Varicocele	1	.11		1			
Diseases of the arteries	2	.22		2			
Aneurism	1	.11		1			
Arterial sclerosis	1	.11		1			
Pericarditis, chronic	1	.11		1			
Endocarditis, chronic	1	.11	1				
Angina pectoris	1	.11	1				
All others	4	.45		4			
Diseases of the genito-urinary system	41	4.57	10	31			
Enuresis, chronic	22	2.45		22			
Nephritis	9	1.00	6	3			
Chronic parenchymatous	6	.67	4	2			
Chronic interstitial	3	.33	2	1			
Pyelitis	3	.33	2	1			
Pyelonephritis, chronic	3	.33	2	1			
Nephrolithiasis	3	.33		3			
Orchitis (nonvenereal)	1	.11		1			
Diseases of the respiratory system	28	3.12	14	14			
Asthma	10	1.11	3	7			
Bronchitis, chronic	5	.56	3	2			
Goiter	4	.45	1	3			
Rhinitis, chronic, atrophic	2	.22	1	1			
Pneumonia, lobar	2	.22	2				
Pleurisy (acute fibrinous, 1; chronic fibrinous, 1)	2	.22	2				
Laryngitis, chronic	1	.11	1				
Thyreoiditis, chronic	1	.11		1			
Pulmonary emphysema	1	.11	1				
Diseases of the skin and cellular tissues	6	.67	3	3			
Corns	2	.22	1	1			
Erythromelalgia	1	.11	1				
Bromidrosis	1	.11		1			
Hyperidrosis	1	.11		1			
Painful scar from abscess	1	.11	1				
Congenital malformations	2	.22		2			
Total for disease	897	100.00	283	523	91	6	

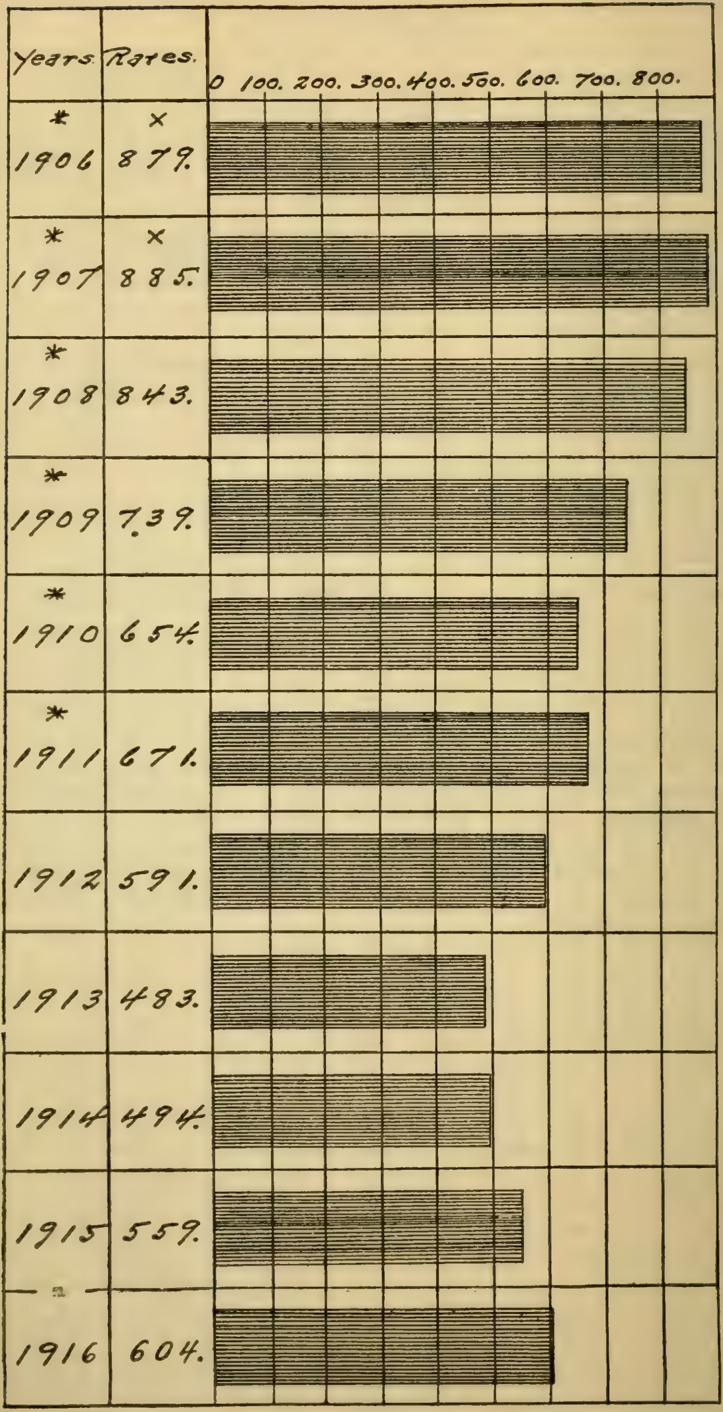
BLE No. 7.—*Discharges for disability, year 1916, United States continental (excluding Alaska)*—Continued.

Causes of discharge.	Number discharged.	Per centage of total discharges for diseases or external causes.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in in line of duty.
EXTERNAL CAUSES.							
nshot wounds	37	28.03	25	....	12	1	....
ctures	32	24.24	29	....	3	2	....
ondary results of injuries	25	18.94	....	25	....	....	....
tusions	7	5.30	7	....	....	....	....
ised wounds	6	4.55	4	....	2	....	....
locations	6	4.55	6	....	....	....	....
ains	5	3.79	5	....	....	1	....
shing	4	3.03	2	....	2	....	....
erated wounds	4	3.03	4	....	....	....	....
nctured wounds	2	1.52	1	....	1	....	....
cussion	2	1.52	2	....	....	....	....
htning stroke	1	.76	1	....	....	....	....
tused wound	1	.76	1	....	....	....	....
Total for external causes	132	100.00	87	25	20	4	....
al for disease	897	87.17	283	523	91	6	92
al for external causes	132	12.83	87	25	20	4	....
Grand total	1,029	100.00	370	548	111	10	92

The principal causes of discharge with the percentage of the total mber of discharges for diseases were: Mental alienation, 18.28; berculosis, 13.27; venereal diseases, 11.15; flat foot, 9.70; disease the digestive system 6.69; and epilepsy, 6.24. The order of quency was the same for the year 1915 as in the years 1914, 1913, d 1912, except that flat foot changed places with venereal diseases, d in addition for 1916 diseases of the digestive system changed aces with epilepsy.

Chart M.—United States. Officers and men.

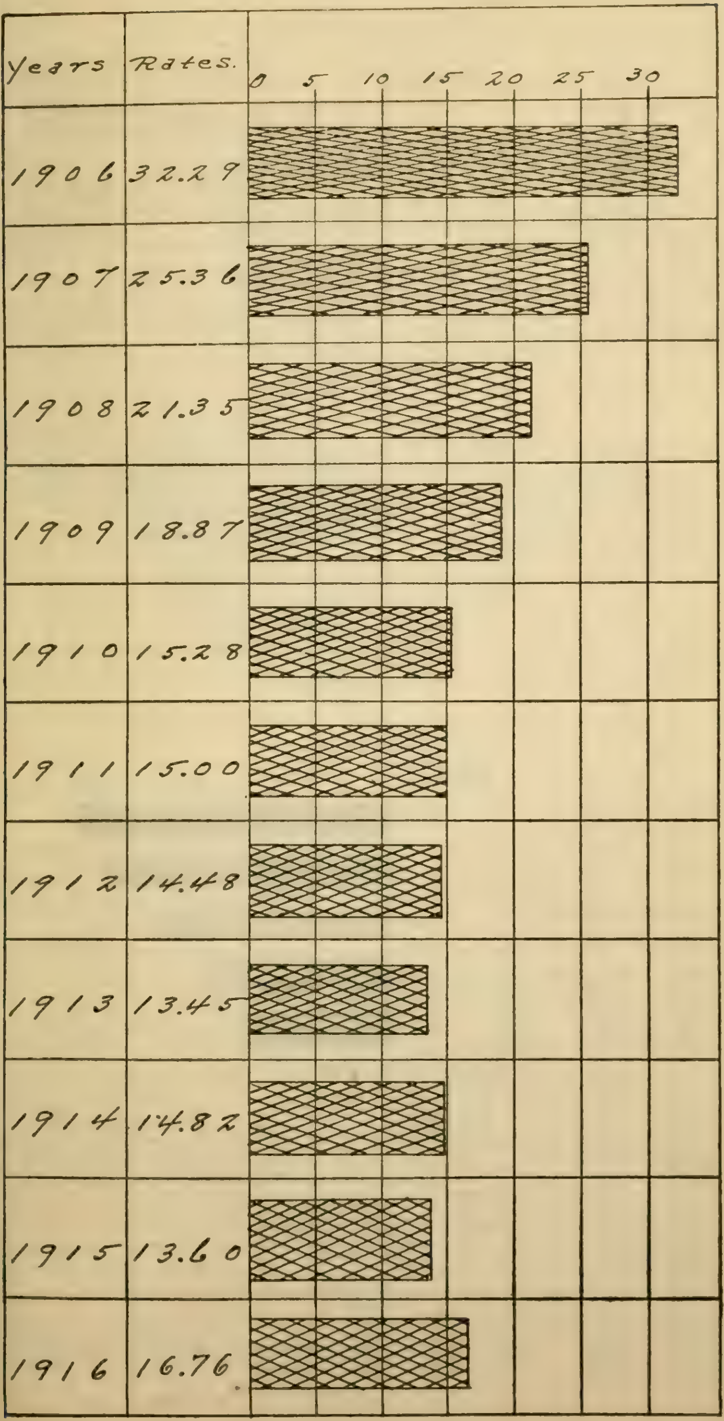
[Admission rates for disease, years 1906-1916.]



* Excess of cases deducted to correspond with years preceding 1906 and 1912 to 1916.
× Enlisted men, officers not included.

Chart N.—United States. Enlisted men.

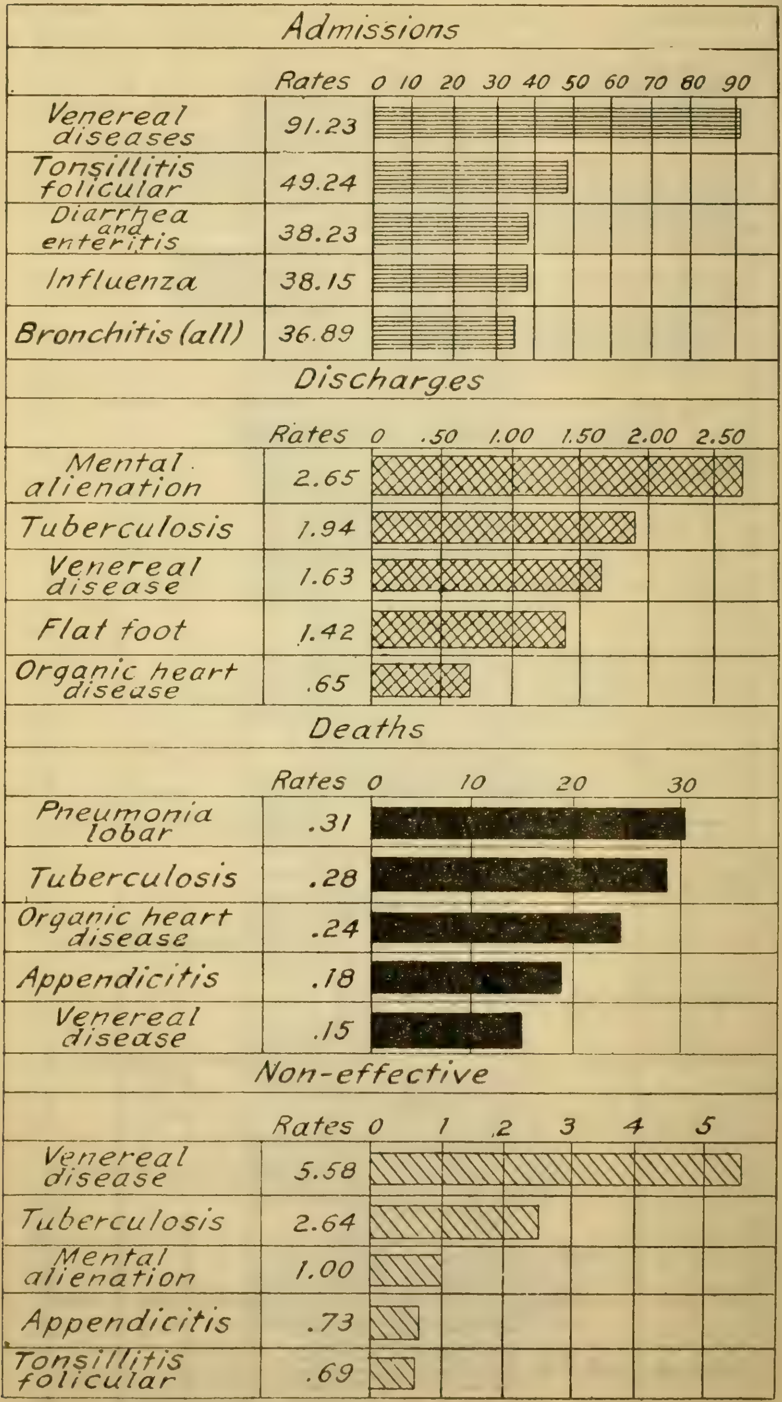
[Discharge rates, all causes, years 1906-1916.]



Years	Rates.
1906	32.29
1907	25.36
1908	21.35
1909	18.87
1910	15.28
1911	15.00
1912	14.48
1913	13.45
1914	14.82
1915	13.60
1916	16.76

Chart O.—United States. Enlisted men.

[Admission, discharge, death, and noneffective rates for diseases having highest rates, year 1916.]



DEATHS.

The death rate for diseases for the United States enlisted men
s 2.80 per 1,000, as compared with 2.99 in 1915 and 2.52 in 1914.
at for external causes was 2.33 per 1,000 in 1916, as compared with
1 in 1915 and 2.30 in 1914. The total for diseases and external
uses was 5.13 in 1916, as compared with 5.40 in 1915 and 4.82 in
14. The total number of deaths in 1916 was 315; of this number
2 were due to disease and 143 to external causes. Deaths as
ll as discharges which occurred in the United States among those
o have been invalided home from their commands in foreign
rvice have been changed to the country where such commands were
ationed. Tuberculosis caused 17 deaths in 1916, 18 in 1915, and
in 1914; measles 9 in 1916, 20 in 1915, and 8 in 1914; pneumonia
bar) 19 in 1916, 28 in 1915, and 15 in 1914; and appendicitis 11
1916, 10 in 1915, and 9 in 1914. There were 35 suicidal deaths in
16, 40 in 1915, and 37 in 1914; 92 accidental deaths, 21 of which
re by drowning, 17 by crushing, and 18 by firearms in 1916, as
mpared with 104 deaths in 1915 and 85 in 1914.

The following table shows the whole number of deaths occurring
nong both officers and enlisted men, the difference accounting for
ficers' deaths, which are used above, in order that accurate com-
rison could be made with statements from last year's report:

BLE No. 8.—*Deaths among officers and enlisted troops serving in the United States continental (excluding Alaska), year 1916.*

Causes of death.	Number.	Ratio per 1,000 of— Mean strength.	Ratio per 1,000 of— Death from disease or external causes.
DISEASES.			
umonia	23	0.35	118.56
berculosis	19	.29	97.94
Pulmonary	16	.25	82.48
Meningitis, tubercular	3	.05	15.46
anic heart disease	15	.23	77.32
Cardiac dilatation	7	.11	36.08
Endocarditis, chronic	4	.06	20.62
Valvular disease	3	.05	15.46
Myocarditis, chronic	1	.02	5.15
pendicitis	13	.20	67.01
asles	9	.14	46.39
demic cerebrospinal meningitis	9	.14	46.39
ncho-pneumonia	9	.14	46.39
hritis, chronic	9	.14	46.39
Parenchymatous, chronic	5	.08	25.77
Interstitial, chronic	4	.06	20.62
nereal diseases	9	.14	46.39
Syphilis (secondary, 1; test, 7)	8	.12	41.24
Gonorrheal endocarditis	1	.02	5.15
cer	8	.12	41.24
sentery (entomæbic, 6; catarrhal, 1)	7	.11	36.08
ticemia	6	.09	30.93
hritis, acute	5	.08	25.77
phoid fever	3	.05	15.46
oplexy	3	.05	15.46
eurism	3	.05	15.46
scess of the liver	3	.05	15.46
itonitis	3	.05	15.46
rlet fever	2	.03	10.31
uenza	2	.03	10.31
oholism (acute, 1; chronic, 1)	2	.03	10.31
ntal alienation (general paralysis, 1; dementia precox, 1)	2	.03	10.31
erial sclerosis	2	.03	10.31

TABLE NO. 8.—*Deaths among officers and enlisted troops serving in the United Stat continental (excluding Alaska), year 1916*—Continued.

Causes of death.	Number.	Ratio per 1,000 o	
		Mean strength.	Death from di ease o extern causes
DISEASES—continued.			
Congestion of the lungs	2	0.03	10.
Ulcer of duodenum	2	.03	10.
Intestinal obstruction	2	.03	10.
Aestivo-autumnal fever	1	.02	5.
Erysipelas	1	.02	5.
Rheumatic fever, acute	1	.02	5.
Diabetes, mellitus	1	.02	5.
Leukemia	1	.02	5.
Meningitis	1	.02	5.
Multiple neuritis	1	.02	5.
Pericarditis, acute	1	.02	5.
Angina pectoris	1	.02	5.
Embolism	1	.02	5.
Laryngitis, acute, acdematous	1	.02	5.
Echinococcus, left lung and spleen	1	.02	5.
Gastric ulcer	1	.02	5.
Cirrhosis of the liver	1	.02	5.
Biliary calculi	1	.02	5.
Pancreatitis, chronic, intestitial	1	.02	5.
Pyonephrosis	1	.02	5.
Raynaud's disease	1	.02	5.
Sudden death—cause unknown	4	.06	20.
Total for disease	194	2.99	1,000.
EXTERNAL CAUSES.			
Suicides	39	.60	253.
By firearms (revolver, 18; rifle, 15)	33	.51	214.
By hanging	4	.06	25.
By poison (bichloride of mercury, 1; cocaine, 1)	2	.03	12.
Homicides	16	.25	103.
By firearms (revolver, 7; rifle, 4; shotgun, 1; and unknown, 3)	15	.23	97.
By comrades (unprovoked, 6; quarrel, 4)	10	.15	64.
By civilians (causes unknown, 3; while resisting arrest, 1; and while attempting to arrest a drunken man, 1)	5	.08	32.
By being struck on head by blunt instrument	1	.02	6.
By gunshot wounds	30	.46	194.
(Self-inflicted, 6; accidentally by comrades, 10; by night watchman, 1; by falling shotgun, 1)	18	.28	116.
Killed in action and died from wounds received in action	9	.14	58.
Shot by sentry	3	.05	19.
Accidental	99	1.53	....
By drowning (while bathing, 10; in attempting to swim the Rio Grande to rescue comrades who had been captured by Mexicans, 4; by the sinking of Government launch in Galveston Bay, 3; by upsetting a boat, 2; fall off wharf while fishing, 1; fall off horse while watering same, 1; and circumstances unknown, 1)	22	.34	142.
By crushing (railroad accidents, 8; run over by heavy vehicles, 6; auto accidents, 5; cave-in of gravel bank, 1)	20	.31	129.
By falls (from horse, 4; from high places, 3)	7	.11	45.
Acute poisoning (methyl alcohol, 4; anaesthesia, 2; ether, 1; and chloroform, 1)	7	.11	45.
Kicked by horse	3	.05	19.
Asphyxia (illuminating gas, 1; buried beneath a snowslide, 1; caught in slack rope, 1)	3	.05	19.
By sunstroke	2	.03	12.
By electricity (struck by lightning, 1; electrocution by live wire, 1)	2	.03	12.
Manner of receiving injuries unknown	3	.05	19.
Total for external causes	154	2.38	1,000.
Total for disease	194	2.99	557.
Total for external causes	154	2.38	442.
Grand total	348	5.37	1,000.

PREVALENCE OF SPECIAL DISEASES.

TYPHOID FEVER.

Twenty-five cases of typhoid fever (officers and enlisted men) oc-irred in the entire United States Army during the calendar year 1916. xteen of these were among troops stationed in the United States; ie other nine occurred in the island possessions. During the year ie Army was scattered over the earth through a wide range of lati-ide in Alaska, in Panama, in China, in Porto Rico, in Hawaii, in the hilippines, in Mexico, and in the various camps, posts, and garri-ons north, south, east, and west of the continental territory of the nited States. The mean strength for the year was 110,454.

There were three deaths from typhoid fever, of which two were ficers.

Of the 25 cases reported, 5 were in the person of officers and 20 in ilisted men, including 3 recruits. All except 1 enlisted man re-eived the antityphoid vaccination; 1 officer 3 years, 8 months, and days before, another officer received 3 doses in 1910 or 1911, 1 in 912, 1 date unknown, and 1 with no information regarding vacci-ation.

Of 9 cases (7 in Mexico and 2 Schofield Barracks), 3 were enlisted en of the same organization, Thirteenth Cavalry, and 1 an enlisted an of the Fifth Cavalry, 2 of the First and Sixteenth Infantry, spectively, and 1 Field Artillery.

Revaccination against typhoid fever upon reenlistment is now quired in the same way as revaccination against smallpox. Officers e required to be revaccinated five years after the first course. fter two completed courses of vaccination are given no further is quired.

Duration of immunity: The question of the duration of immunity nferred by antityphoid vaccination is still an open one, statistical formation being at this time too meager to draw definite and satis-ctory conclusions on this point.

The English observers from their experience in India and elsewhere ave inclined to the belief that the protection against typhoid fever rnished by the vaccination as they give it begins to decline between ie second and third year following administration.

Students of this subject in our Army, including those most com-etent anywhere to discuss the matter, have with few exceptions scribed a much greater degree and longer period of protection gainst typhoid, when the vaccination was made with the vaccine repared by the Medical Department of the Army and given, as now rescribed, three doses at intervals of 10 days, a total of 2½ cubic entimeters, the first dose being one-half cubic centimeter, the cceeding doses 1 cubic centimeter each.

It is generally understood, of course, that the protection from the yphoid vaccine has never been considered absolute in all individuals, a certain small percentage of persons being incapable of complete immunization against the disease, as is shown by the fact that actual attacks of typhoid fever itself do not always afford freedom from a second attack. Other reasons for the appearance of typhoid among those vaccinated are inert vaccines or defective methods of administration and unusual exposure to highly infective typhoid material.

It may be stated that the disease occurring after antityphoid vaccination, with but few exceptions, shows a much milder course than ordinary, and the death rate is markedly lower among those who have received the antityphoid vaccination.

The following tabulation is for the purpose of comparing the figures for 1916 with those for the years 1915 and 1914:

Typhoid fever, the Army, officers and enlisted men. American and native troops.

Year.	Cases.		Deaths.		Immunized persons.	
	Number.	Rates for 1,000 mean strength.	Number cases.	Rates for 1,000 mean strength.	Cases.	Deaths.
1916	25	0.23	3	0.03	14	1
1915	8	.08	....	....	7	....
1914	7	.07	3	.03	1	....

Attention is invited to Chart P, showing the admission and death rates for officers and enlisted men serving in the United States. This chart shows graphically the remarkable decrease in both rates as the result of the use of the antityphoid vaccination. This vaccination was begun—but was voluntary—in 1909, and was made compulsory for the entire Army in 1911. (For the various steps from voluntary to compulsory vaccination, vide annual report of this office for 1912, pp. 52 et seq.)

The increasing use of antityphoid vaccination as a prevention against typhoid by the National Guard is to be encouraged. This procedure is now necessary before these troops can be mustered into the Federal service, or be accepted as volunteers; and to have this already accomplished is to materially expedite the mustering in of such troops. It is also deemed desirable, in order that standardized reports may be obtained, that the vaccine made for the Regular Army and supplied by the laboratory, Army Medical School, Washington, D. C., be used for the troops liable to service.

No.	Rank.	Date of enlistment or commission.	Date taken sick.	Date vaccinated.			Original diagnosis.	Laboratory findings.	Previous vaccination for typhoid.	Result of disease.	Age.	Station.	Remarks.
				First dose.	Second dose.	Third dose.							
1	Private, Company I, First Infantry.	1915 Mar. 6	1916 Jan. 28	1915 Mar. 6	1915 Mar. 16	....	Typhoid..	Urine culture for b. typhosus confirmed.	Vac., no; typ., no.	Duty, May 18, 1916.	30	Schofield Barracks, Hawaii.	
2	First lieutenant, Coast Artillery Corps.	....	1916 Feb. 4	1912 Apr. 22	1912 May 2	1912 May 13	Typhoid..	Blood test positive.	Typ., no..	Died, Feb. 27, 1916.	30	Walter Reed General Hospital, D. C.	
3	Private, One hundred and sixty-second Company, Coast Artillery Corps.	1914 July 8	1916 Feb. 13	June 10[1]	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Died, Mar. 3, 1916.	27	Fort Dade, Fla.	
4	Private, Sixty-fourth Company, Coast Artillery Corps.	1915 Feb. 9	1916 Mar. 11	1915 Feb. 9	1915 Feb. 18	1915 Feb. 27	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, June 7, 1916.	26	Fort Winfield Scott, Cal.	Treated in Letterman General Hospital.
5	Second lieutenant, Fifth Cavalry.	1915 June 12	1916 Apr. 30	1912 3 doses..	....	....	Typhoid..	Blood test positive.	Typ., no..	Left hospital July 1, 1916.	22	Fort Bliss, Tex.	
6	Captain, First Field Artillery.	1901 Feb. 2	1916 May 20	1910 3 doses..	....	....	Typhoid..	Blood test positive.	Typ., no..	Duty, Aug. 8, 1916.	39	Schofield Barracks, Hawaii.	
7	Private, Company B, Ninth Infantry.	1916 June 14	1916 June 20	None....	....	....	Typhoid..	Blood test positive.	Vac., no; typ., no.	Duty, Sept. 7, 1916.	25	Ninth Infantry, Laredo, Tex.	
8	Private, First Company, Coast Artillery Corps.	1916 May 10	1916 June 23	1916 June 2[1]	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Sept. 9, 1916.	22	Fort Greble, R. I.	

[1] Typhoid prophylactic completed.

TABLE NO. 9.—*Typhoid fever*—Continued.

No.	Rank.	Date of enlistment or commission.	Date taken sick.	Date vaccinated.			Original diagnosis.	Laboratory findings.	Previous vaccination for typhoid.	Result of disease.	Age.	Station.	Remarks.
				First dose.	Second dose.	Third dose.							
9	Second lieutenant, Quartermaster Corps.	1916 July 25	1916 July 15	None....	....	....	Typhoid..	Clinical diagnosis.	Unknown.	Left hospital, Oct. 8, 1916.	35	Colonia Dublan, Mexico.	Treated in base hospital, Fort Bliss, Tex., Aug. 2 to Oct. 8, 1916.
10	Sergeant, Company C, Fourth Field Artillery.	1913 Jan. 30	1916 July 20	....	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Oct. 11, 1916.	31	Colonia Dublan, Mexico.	Treated in base hospital, Fort Bliss, Tex., from Aug. 4 to Oct. 11, 1916.
11	Recruit Medical Department, unassigned.	1916 July 18	1916 July 23	1916 July 18	....	....	Typhoid..	Blood test positive.	Vac., no; typ., no.	Duty, Oct. 11, 1916.	23	Columbus Barracks, Ohio.	Disease contracted before enlistment.
12	Recruit, Fifteenth Recruit Company.	1916 July 14	1916 July 24	1916 July 17	....	....	Typhoid..	Blood test positive.	Vac., no; typ., no.	Duty, Oct. 15, 1916.	18	Jefferson Barracks, Mo.	
13	Private, Quartermaster Corps.	1913 Mar. 6	1916 Aug. 13	1916 June 3 [1]	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Oct. 6, 1916.	30	Fort Sam Hosuton, Tex.	Treated in Army and Navy General Hospital, Hot Springs, Ark., Sept. 10 to Oct. 6, 1916.
14	Sergeant, Company C, Thirteenth Cavalry.	1914 Mar. 28	1916 Sept. 18	1912 Nov. 30 [1]	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Oct. 27, 1916.	26	Colonia Dublan, Mexico.	
15	Private, Medical Department.	1916 July 4	1916 Oct. 1	Rct. St.	Rct. St.	1916 July 5	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Dec. 13, 1916.	21	Fort Bliss, Tex.	
16	Private, Company G, Thirteenth Cavalry.	1916 Mar. 16	1916 Oct. 1	1914 Apr. — [1]	....	....	Para-typhoid.	Diagnosis changed to typhoid fever Oct. 14, 1916.	Typ., no..	Duty, Dec. 13, 1916.	21	Colonia Dublan, Mexico.	
17	Recruit, Second Company, Cavalry, unassigned.	1916 Sept. 29	1916 Oct. 5	1916 Sept. 29	None....	None....	Typhoid..	Blood test positive.	Vac., no; typ., no.	Duty, Nov. 20, 1916.	19	Fort Slocum, N.Y.	In incubation stage at enlistment.

18	Private, Company C, Sixth Cavalry.	Jan. 16	Oct. 16	Jan. —	....	....	Typhoid..	Blood test negative.	Vac., yes; typ., no.	Duty, Dec. 28, 1916.	[illegible]	Marfa, Tex..	
19	Private, Company C, Sixth Cavalry.	1915 June 8	1916 Oct. 13	1915 June —[1]	....	....	Typhoid..	Blood test negative.	Vac., yes; typ., no.	Duty, Jan. 29, 1917.	22	Terlingua, Tex.	Treated in camp hospital, Marfa, Tex.
20	Private, Company C, Sixth Cavalry.	1916 Jan. 7	1916 Oct. 19	1916 Jan. —[1]	....	....	Typhoid..	Blood test negative.	Vac., yes; typ., no.	Duty, Dec. 30, 1916.	27	Terlingua, Tex.	Treated in camp hospital, Marfa, Tex.
21	Sergeant, supply, Sixteenth Infantry.	1914 July 6	1916 Oct. 21	1916 Oct. 21	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Dec. 16, 1916.	42	El Valle, Mexico.	Treated in base hospital No. 4, Fort Bliss, Tex., Dec. 3 to 16, 1916.
22	First lieutenant, Medical Reserve Corps.	1916 July 3	1916 Oct. 24	....	....	....	Typhoid..	Blood test negative.	Vac., yes; had typ. 1908.	Died, Dec. 12, 1916.	40	Marfa, Tex..	Treated in Fort Sam Houston, Tex.
23	Private, Company A, Fifth Cavalry.	1915 Mar. 9	1916 Oct. 30	....	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Dec. 9, 1916.	38	El Valle, Mexico.	Treated in field hospital, El Valle, Mex.
24	Corporal, Company H, Fourteenth Cavalry.	1913 Dec. —	1916 Nov. 14	1914 Jan. 18[1]	....	....	Typhoid..	....	....	Duty, Jan. 9, 1917.	23	Third Infantry, Eagle Pass, Tex.	Treated in base hospital No. 4, Eagle Pass, Tex.
25	Private, Company G, Thirteenth Cavalry.	1912 July 10	1916 Nov. 15	1913 Aug. 12[1]	....	....	Typhoid..	Blood test positive.	Vac., yes; typ., no.	Duty, Mar. 7, 1917.	24	Colonia Dublan, Mexico.	Admitted with broncho-pneumonia, onset of typhoid fever Dec. 7, 1916.

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[1] Typhoid prophylactic completed.

Chart P.—United States. Officers and men.

[Admission and death rates for typhoid fever, years 1906–1916.]

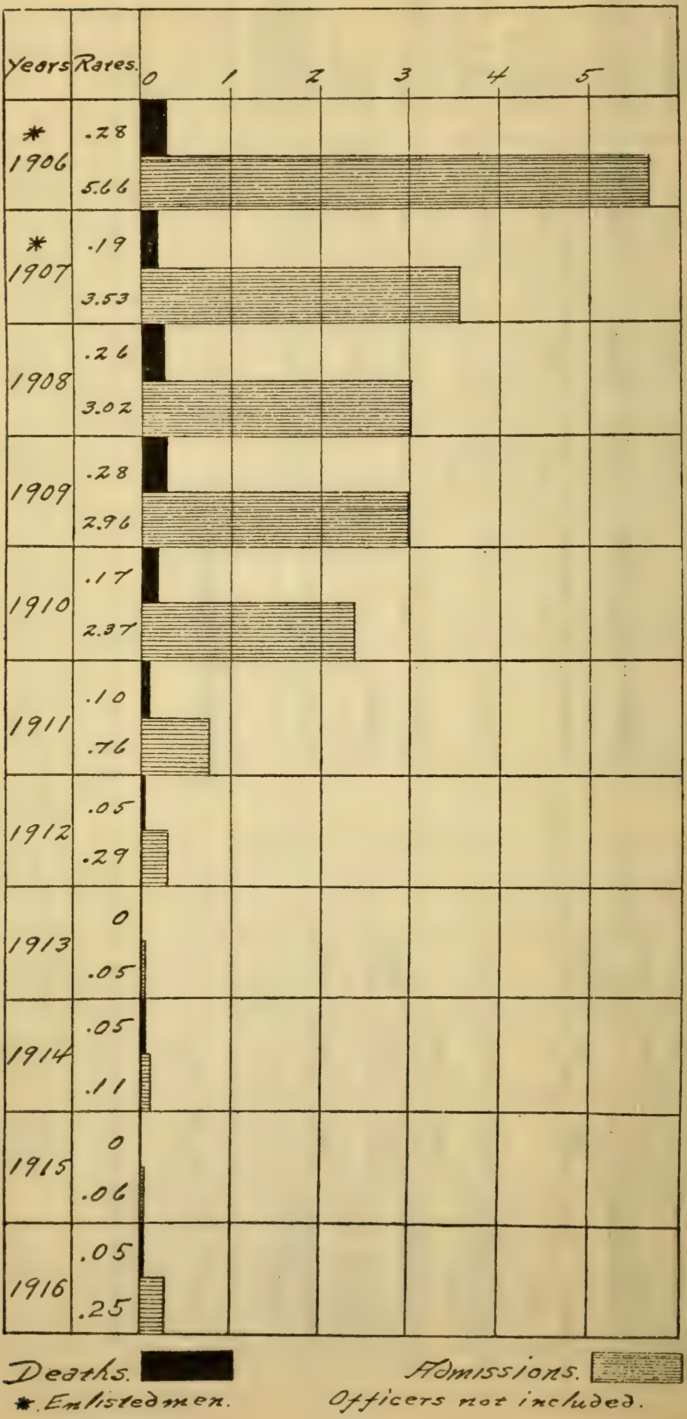
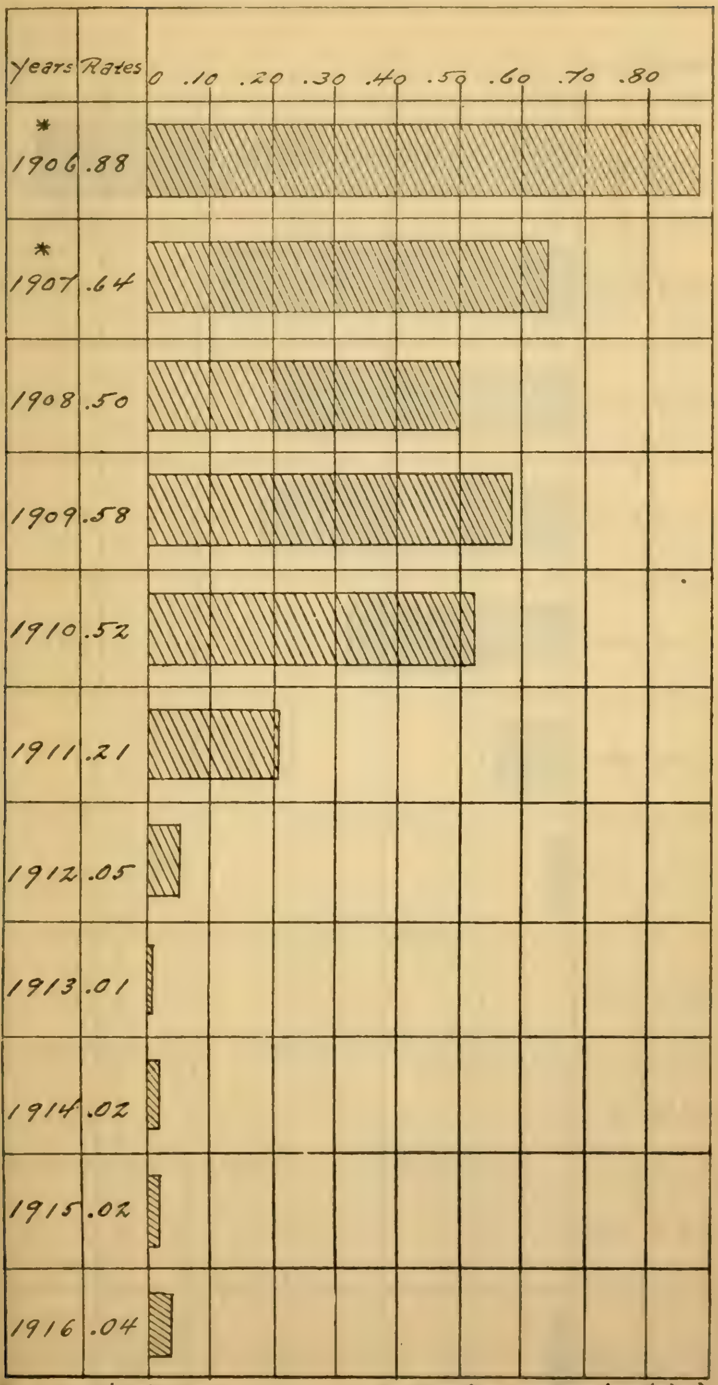


Chart P[1].—*United States. Officers and men.*

[Noneffective rates for typhoid fever, years 1906–1916.]



* Enlisted men. * Officers not included.

Chart Q.—Army. Officers and American and native troops.

[Admission rates for typhoid fever, years 1906–1916.]

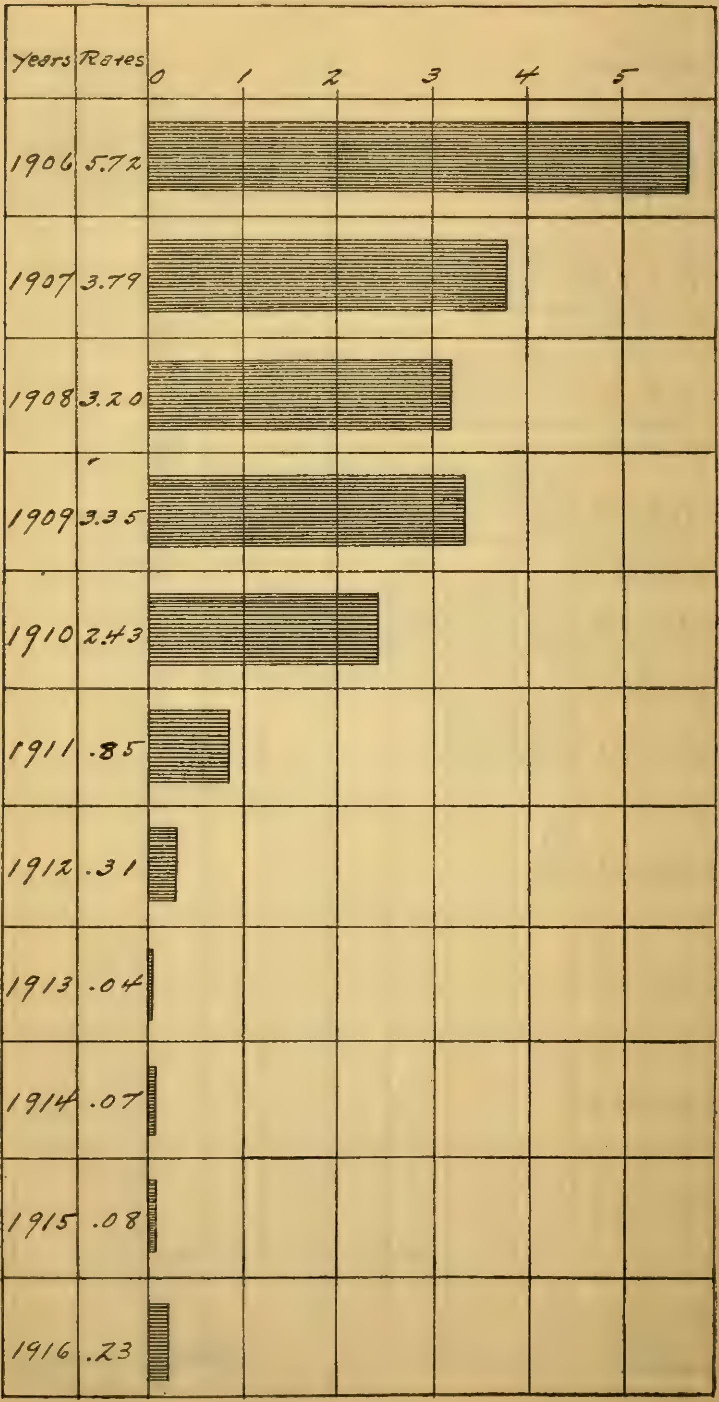
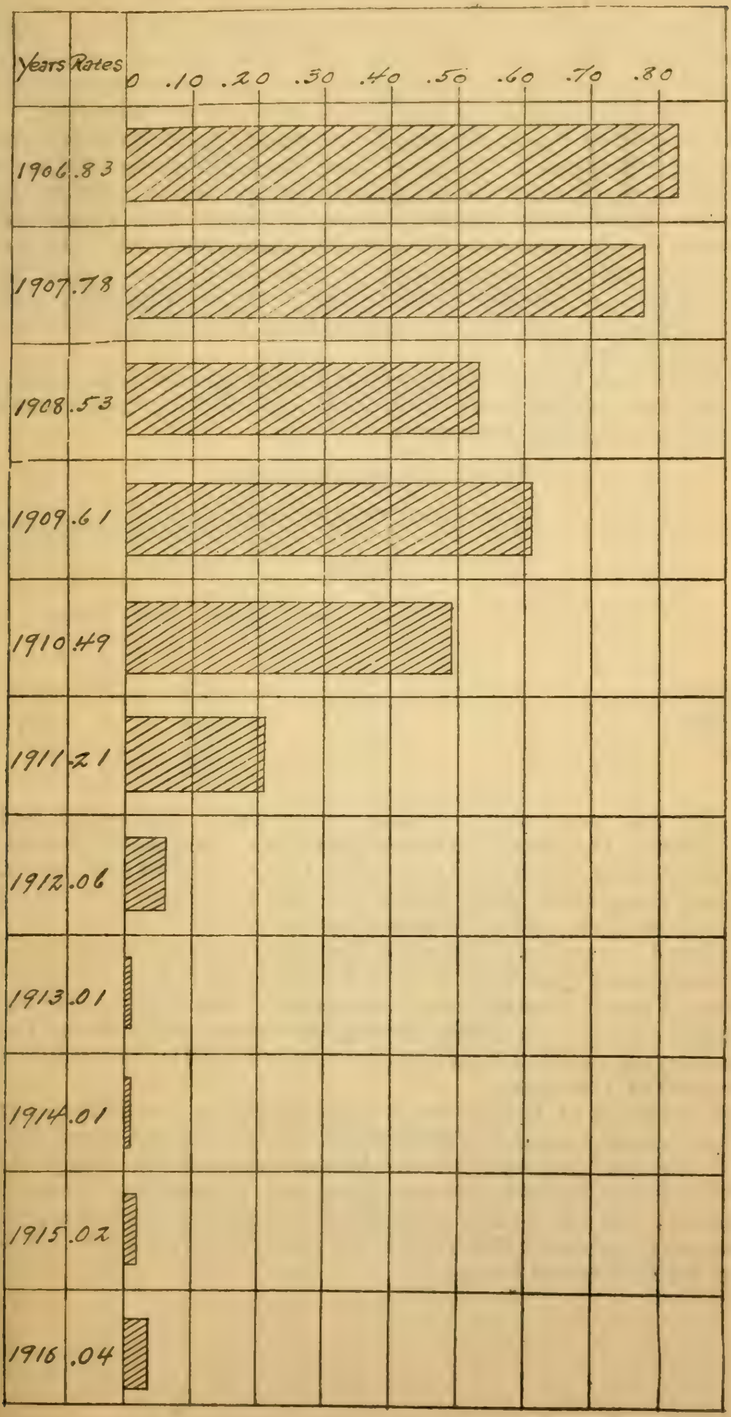


Chart Q^1.—Army. Officers and American and native troops.

[Noneffective rates for typhoid fever, years 1906–1916.]



PARATYPHOID FEVER.

Table No. 10 shows that 114 cases of paratyphoid fever occurr in the entire Regular Army during the calendar year 1916. Ninet one of these cases were reported from Mexico and 1 from Chin leaving but 22 distributed throughout the United States—18 on tl border, 2 at Fort Sam Houston, Tex., and 2 at Fort Bliss, Tex.

It is, of course, well understood that paratyphoid fever is a distin clinical entity and is not typhoid fever, though sometimes resembli atypical cases of that disease. It is caused by a different micr organism, the bacillus paratyphosus, of which two types are di tinguishable—*B. paratyphosus* A and *B. paratyphosus* B. In weste Europe, as reported, paratyphoid fever is much more frequently d to the B type of bacillus than to the A type. Clinically they a hardly distinguishable, but it is stated that A fever is apt to last thr or four days longer.

An important feature in the prevention of paratyphoid fever, as typhoid fever is the active searching out of "carriers" and th prompt isolation and treatment.

TABLE No. 10.—*Paratyphoid fever, 1916.*

[Officers and enlisted men (total).]

	Regulars.		National Guard.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deatl
Army:						
Number	114	....	296	4	410	
Ratio	1.03	....	4.49	0.06	2.32	0
United States:						
Number	22	....	296	4	318	
Ratio	0.34	....	4.49	0.06	2.44	0

Of the 296 cases and 4 deaths occurring in the entire Natior Guard during the year, 215 cases (29.07 per 1,000)and 3 deaths we reported among the New York State troops, and of this number cases are charged to camps located in that State and 171 cases anc deaths to stations on the Mexican border.

It may be stated at this time that paratyphoid fever, heretof but infrequently met with in our Army, appeared in the New Yo division of the National Guard, stationed in the Brownsville distri in August, 1916, principally among the troops at Mission, Tex. few scattering cases at other points occurred in the same district; all, a total of 120 cases.

The outbreak of this diease was promptly and satisfactorily m The vaccination against paratyphoid with a mixed paratyphoid and B vaccine prepared in the laboratories of the Army Medi School was authorized, the searching out of possible "carriers" the disease was vigorously prosecuted, camp sites were changed, a all sanitary orders rigidly enforced under the direction of inspect of the Army Medical Corps.

VENEREAL DISEASES.

Special measures for protection against this class of infectious eases were formulated six years ago, since which time, so far as in the power of the Medical Department, they have been vigorsly and conscientiously carried out, and it is further believed that the great majority of instances there has been no laxness in the ict enforcement of the regulations by others in military authority. should be understood that the prime source of infection in venereal eases lies not within military jurisdiction and control, but in the ilian life, quite apart from the immediate garrison life of the soldier d the rigid supervision incident thereto.

BLE No. 12. *Venereal diseases. Army and United States continental (excluding Alaska) enlisted American troops, compared for years 1914, 1915, and 1916.*

	Army (enlisted American troops).			United States continental (excluding Alaska) enlisted men.		
	1916	1915	1914	1916	1915	1914
ios per 1,000 of mean strength for:						
Cases admitted	103.35	107.71	110.69	91.23	83.60	89.84
Men constantly noneffective	5.62	4.78	4.73	5.58	3.99	3.75

TABLE NO. 13.—*Venereal diseases, admissions and discharges. Army American troops (enlisted men), year 1916.*

	Mean strength.	Syphilis.				Chancroid.				Gonorrhea.				Total.			
		Admissions.		Discharges.		Admissions.		Discharges.		Admissions.		Discharges.		Admissions.		Discharges.	
		Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States	61,410	1,128	18.36	40	0.65	1,107	18.02			3,368	54.84	60	0.98	5,603	91.23	100	1.63
Mexican punitive expedition	8,049	174	21.62	12	1.49	102	12.67			262	32.55	10	1.24	538	66.84	22	2.73
Alaska	745	2	2.68			1	1.34			12	16.11	1	1.34	15	20.13	1	1.34
Philippines	11,580	415	35.84	7	.60	409	35.32			1,067	92.14	7	.60	1,891	163.30	14	1.21
Hawaii	8,476	180	21.24	9	1.06	243	28.67			409	48.26	3	.35	832	98.16	12	1.42
Panama	6,783	133	19.61	5	.74	253	37.30			426	62.80	4	.59	812	119.71	9	1.33
China	1,321	77	58.29			165	124.91			148	112.04	1	.76	390	295.23	1	.76
Army transports	822	10	12.17			57	69.34			103	125.30			170	206.81		
Total	99,186	2,119	21.36	73	.74	2,337	23.56			5,795	58.42	86	.87	10,251	103.35	159	1.60

	Total days.	Constantly sick.	Ratio per 1,000.
Syphilis	64,287	175.65	1.77
Chancroid	42,415	115.89	1.17
Gonorrhea	97,425	266.19	2.68
Total	204,127	557.72	5.62

BLE No. 14.—*Venereal diseases, by years, 1912 to 1916. United States, continental (excluding Alaska), enlisted men.*

[Ratio per 1,000 of mean strength.]

	Admitted.			Discharged on certificate of disability.			Died.			Noneffective.		
	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.
norrhea and results:												
1916	54.84	54.32	92.88	0.98	0.92	4.83	0.02	0.02	......	2.65	2.56	9.32
1915	50.56	50.91	41.82	.31	.32	......	.02	.02	......	2.05	2.04	2.19
1914	51.35	52.04	28.99	.32	.33	......	......	......	......	1.80	1.81	1.44
1913	49.46	49.14	60.14	.66	.68	......	......	......	......	1.84	1.84	1.65
1912	70.07	69.87	74.36	.60	.61	.40	.02	.02	......	3.26	3.27	2.94
ancroid:												
1916	18.02	18.02	18.09	......	......	......	......	......	......	1.06	1.05	1.80
1915	15.80	15.73	17.63	.03	.02	.41	......	......	......	.72	.71	.85
1914	19.96	20.09	18.56	......	......	......	......	......	......	.80	.79	1.18
1913	15.38	15.11	24.76	......	......	......	......	......	......	.57	.56	.98
1912	20.09	20.52	10.45	.03	.03	......	......	......	......	1.01	1.03	.50
philis:												
1916	18.36	17.99	45.84	.65	.64	1.21	.13	.12	1.21	1.88	1.78	9.14
1915	17.24	17.44	12.30	.54	.51	1.23	.05	.03	.41	1.22	1.23	1.18
1914	18.53	18.86	7.66	.55	.43	4.38	.05	.05	......	1.15	1.11	2.46
1913	20.99	20.98	21.23	.35	.29	2.36	.07	.05	.59	1.17	1.15	1.90
1912	25.58	25.84	19.69	.62	.61	.80	.03	.03	......	1.70	1.68	2.11
tal venereal:												
1916	91.23	90.34	156.82	1.63	1.57	6.03	.15	.13	1.21	5.58	5.38	20.26
1915	83.60	84.08	71.75	.88	.85	1.64	.06	.05	.41	3.99	3.98	4.22
1914	89.84	90.99	52.52	.87	.77	4.38	.05	.05	......	1.15	1.11	2.46
1913	85.83	85.23	106.13	1.01	.97	2.36	.07	.05	.59	3.58	3.55	4.53
1912	115.74	116.24	104.50	1.26	1.26	1.21	.05	.05	......	5.96	5.98	5.55

ABLE No. 15.—*Syphilis, United States, continental (excluding Alaska), years 1912 to 1916, enlisted men.*

[Ratio per 1,000 of mean strength.]

Year.	Primary syphilis.		Secondary syphilis.		Tertiary syphilis.		Hereditary syphilis.		Total.	
	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.	Admission rates.	Noneffective rates.
16	3.51	0.27	11.17	1.00	2.22	0.45	0.05	0.01	17.61	1.80
15	2.86	.15	11.53	.67	2.39	.35	.06	.01	17.24	1.22
14	3.10	.17	12.73	.63	2.25	.32	.05	.02	18.53	1.15
13	2.72	.13	15.45	.73	1.90	.27	.02	.01	20.99	1.17
12	3.89	.18	19.01	1.20	2.50	.31	.17	.01	25.58	1.70

ABLE No. 16.—*Recruit depots, total number of admissions, venereal diseases, with ratios and mean strength, officers and enlisted men, years 1916, 1915, and 1914.*

Recruit depots.	1916			1915			1914		
	Admissions.		Mean strength.	Admissions.		Mean strength.	Admissions.		Mean strength.
	Total.	Ratio.		Total.	Ratio.		Total.	Ratio.	
fferson Barracks, Mo	248	167.45	1,481	222	157.11	1,413	202	135.48	1,491
olumbus Barracks, Ohio	198	148.76	1,331	110	94.34	1,166	194	128.39	1,511
ort McDowell, Cal	103	108.42	950	104	119.40	871	97	94.36	1,028
ort Logan, Colo	55	90.31	609	32	56.04	571	76	116.92	650
ort Slocum, N. Y	60	51.64	1,162	77	59.82	1,287	129	88.30	1,461
Total	664	120.01	5,533	545	102.68	5,308	698	113.66	6,141

The admission rate for enlisted men in the United States is som what higher than for 1915, being 91.23 compared with 83.60 per 1,00

The noneffective rate was considerably higher, being 5.58 per 1,0 for 1916 as against 3.99 in 1915, which may be accounted for by t presence in hospital for a greater length of time of cases of syphil There was an increase in the number of cases so diagnosed of 29 ov 1915. For gonorrhea the number of cases is 146 more than last yea and in the local infection, chancroid, the increase is 100. In 19 there was a large falling off in the number of secondary and tertia cases of syphilis and a decrease in the case rate for the primary cas It will be noted from Table No. 15 that a like decrease has tak place in the number of cases of tertiary syphilis for 1916, while the is an increase in the rate for primary cases.

In comparing the figures for 1916 and 1915 with those for 19 and 1914 and the preceding years it must be borne in mind that t diagnoses made prior to 1911 were determined without the aid of t Wassermann reaction. By reason of this many latent cases are n detected which were largely missed prior to 1911.

By reference to Table No. 12 it will be seen that the admissi rate for the total American troops of the Army also was lower th for the year 1915, the rate being 103.35 as against 107.71, while t noneffective rate was higher, being 5.62 per 1,000 in 1916 as co pared with 4.78 in 1915.

TABLE NO. 17.—*Venereal diseases, officers and enlisted men, admissions and ratios 1,000, for posts of more than 300 men, in the United States (excluding Alaska), 19 and 1916.*

		Mean strength.	1916		1915		Relati standi on lis
			Admissions.		Admissions.		
			Total.	Ratio.	Total.	Ratio.	
1	Fort Sam Houston, Tex	2,135	471	220.61	217	167.83	
2	Fort Oglethorpe, Ga	330	63	190.91	155	141.17	
3	Fort Bliss, Tex	1,341	208	155.11	112	136.09	
4	Fort Moultrie, S. C	358	42	117.32	41	103.27	
5	Fort Strong, Mass	375	37	98.67	28	59.57	
6	Fort Ethan Allen, Vt	630	59	93.65	56	64.44	
6½	United States (total officers and enlisted men)	64,466	5,613	87.07	5,340	79.95	
7	Fort Andrews, Mass	325	28	86.16	30	68.65	
8	Washington Barracks, D. C	330	28	84.85	43	84.65	
9	Fort Myer, Va	513	43	83.82	56	80.69	
10	Fort Sill, Okla	925	72	77.84	122	103.21	
11	Fort Barrancas, Fla	430	33	76.74	43	67.50	
12	Fort McKinley, Me	439	33	75.17	41	73.21	
13	Fort McIntosh, Tex	365	27	73.97	41	107.05	
14	Fort H. G. Wright, N. Y	644	47	72.98	37	54.17	
15	Fort Riley, Kans	415	30	72.30	33	69.62	
16	Fort Screven, Ga	387	27	69.77	55	123.87	
17	Fort Dupont, Del	309	21	67.96	11	40.44	......
18	Fort Leavenworth, Kans	487	33	67.76	76	93.71	
19	Presidio of San Francisco, Cal	542	34	62.73	130	119.05	
20	Vancouver Barracks, Wash	640	38	59.37	92	96.04	
21	Fort Rosecrans, Cal	311	18	57.88	23	45.10	
22	Fort Jay, N. Y	365	21	57.53	33	89.92	
23	Fort Clark, Tex	358	19	53.07	48	89.89	
24	Fort Adams, R. I	516	27	52.32	30	50.42	
25	Fort Winfield Scott, Cal	952	49	51.47	48	43.71	
26	Plattsburg Barracks, N. Y	473	22	46.51	50	65.28	
27	Fort Monroe, Va	1,156	52	44.98	90	66.57	
28	Fort Hamilton, N. Y	505	22	43.57	14	22.26	
29	Fort Howard, Md	331	14	42.30	9	28.39	
30	Fort Wadsworth, N. Y	337	14	41.54	8	21.92	
31	Fort Hancock, N. J	670	27	40.30	25	33.33	

BLE No. 17.—*Venereal diseases, officers and enlisted men, admissions and ratios per ,000. for posts of more than 300 men. in the United States (excluding Alaska). 1915 nd 1916*—Continued.

	1916			1915		
	Mean strength.	Admissions.		Admissions.		Relative standing on list.
		Total.	Ratio.	Total.	Ratio.	
Fort Worden, Wash	639	25	39.13	35	55.29	27
Fort Casey, Wash	336	13	38.69	10	29.33	40
Fort Williams, Me	415	16	38.56	15	29.76	39
Fort Stevens, Oreg	312	12	38.46	2	5.17	45
Fort Terry, N. Y	602	20	33.22	31	45.52	33
Fort Totten, N. Y	495	16	32.32	27	47.71	32
West Point, N. Y	840	16	19.05	23	27.45	42

ABLE No. 18.—*Venereal diseases. Army. American troops. officers and enlisted men. by departments and divisions. year 1916.*

	Mean strength.			Cases.			Rates per 1,000 of mean strength.		
	Officers.	Enlisted men.	Total.	Officers.	Enlisted men	Total.	Officers.	Enlisted men.	Total.
rmy American troops	4,734	99,186	103,920	16	10,251	10,267	3.38	103.35	98.80
nited States, continental (excluding Alaska)	3,056	61,410	64,466	10	5,603	5,613	3.27	91.23	87.07
astern Department	887	14,959	15,846	3	1,066	1,069	3.38	71.26	67.46
entral Department	147	1,515	1,662	......	98	98	....	64.69	58.97
outhern Department (excluding troops on Mexican border and in Mexico)	232	5,224	5,456	1	818	819	4.31	156.58	150.11
roops on Mexican border	1,147	26,065	27,212	12	2,421	2,433	10.46	92.88	89.41
roops in Mexico	294	8,049	8,343	1	538	539	3.40	66.84	64.60
estern Department	266	5,743	6,009	......	378	378	....	65.82	62.91
ndependent stations	207	1,989	2,196	......	69	69	....	34.64	31.42
ecruit depots	122	5,411	5,533	......	664	664	....	122.71	120.01
eneral hospitals	48	504	552	2	81	83	41.67	160.71	150.36
laska	25	745	770	......	15	15	....	20.13	19.48
anama Canal Zone	240	6,783	7,023	......	812	812	....	119.71	115.62
awaiian Department	313	8,476	8,789	1	832	833	31.95	98.16	94.78
hina	48	1,321	1,369	......	390	390	....	295.23	284.88
hilippine Islands (American troops)	664	11,580	12,244	4	1,891	1,895	6.02	163.30	154.77
rmy transports	58	822	880	......	170	170	....	206.81	193.18
hilippine Scouts	......	5,579	5,579	......	167	167	....	29.93	29.93
orto Rican Regiment	36	955	991	......	80	80	....	83.77	80.73

Table No. 16 shows the rates of admission for three years of enereal disease at the five recruiting depots. Of the five recruiting tations, two—Forts Slocum and McDowell—show a slight decrease ver the rates for 1915, Fort Slocum having the lowest rate for 1916. aking the five recruit depots as a whole, the total admission rate s higher for 1916, being 120.01, as compared with 102.68 in 1915 nd 113.66 for 1914. Jefferson Barracks has the highest rate of any f the depots, 167.45 per 1,000 in 1916, as compared with 157.11 in 915, with a rate of 148.76 in 1916 at Columbus Barracks, as compared ith 94.34 for 1915.

Table No. 17 gives the relative standing and rates with reference o venereal disease for 38 posts in the United States. The post aving the highest rate for venereal disease is Fort Sam Houston, ex. The fact that Fort Sam Houston leads all other posts for venereal disease this year can be accounted for by the mobilizatio of a good portion of our troops on the southern border. But suc facts seem only to extenuate, but not to excuse, the failure to lowe the ratio of these preventable diseases.

The most marked improvement is shown at Presidio of San Fra cisco, where the admission rate was reduced from 119.05 in 1915 t 62.73 per 1,000 in 1916; where formerly Presidio stood No. 7 on th list, this year it stands No. 19; Fort Screven, which last year stoo No. 6 on the list, this year stands No. 16, while Fort Clark move from No. 15 last year to No. 23 this year.

MALARIAL FEVERS.

The admission rate for malarial fever, officers and enlisted men, i the United States for 1916 is slightly lower than for the year 191 being 12.19 per 1,000, as compared with 12.37 in 1915. The rate for 1914 was 10.74; that for 1913, 8.62; that for 1912, 13.99; and fo 1911, 14.35.

The noneffective rate for 1916 was 0.34, as compared with 0.2 in 1915, 0.24 in 1914, 0.18 in 1913, and 0.29 per 1,000 in 1912.

No discharges, but two deaths, resulted from malarial fevers du ing the year. Chart R shows comparative rates for this disease fo the entire command, including officers.

TABLE NO. 19.—*Malarial infections, United States, continental (excluding Alaska years 1912 to 1916, inclusive, officers and enlisted men.*

(Ratio per 1,000 of mean strength.)

Malarial fevers.	Admitted.					Noneffective.					Discharges.	Deaths.
	Total United States.	Officers.	Enlisted men.			Total United States.	Officers.	Enlisted men.				
			Total.	White.	Colored.			Total.	White.	Colored.		
Quartan and tertian:												
1916	10.33	3.60	10.67	10.71	7.24	0.26	0.07	0.27	0.27	0.31	......	....
1915	9.25	5.22	9.44	9.61	5.33	.20	.22	.20	.20	.09	......	....
1914	9.28	5.68	9.45	9.67	2.19	.18	.16	.18	.18	.09	......	....
1913	7.16	4.17	7.31	7.50	1.18	.14	.14	.13	.14	.01	......	....
1912	12.20	7.92	12.42	12.80	2.01	.24	.12	.24	.25	.04	......	....
Estivo-autumnal:												
1916	.88	.65	.90	.87	2.41	.04	.10	.03	.03	.29	......	0.
1915	1.87	.33	1.95	1.97	1.23	.04	.07	.04	.04	.04	......	.
1914	.71	2.00	.65	.67	....	.03	......	.02	.02	......	......	....
1913	.69	.96	.67	.69	....	.02	.02	.13	.14	.01	......	....
1912	.94	.66	.96	1.00	....	.03	.02	.24	.25	.04	......	....
Malaria cachexia and undetermined malarial fever:												
1916	.98	1.30	.96	.96	1.21	.04	.22	.03	.03	.03	......	....
1915	1.24	1.63	1.23	1.27	....	.03	.10	.03	.03	......	......	....
1914	.75	2.00	.69	.71	....	.03	......	.04	.04	......	......	....
1913	.78	.32	.81	.64	6.49	.03	......	.02	.02	.11	0.02	....
1912	.85	.99	.84	.77	2.41	.03	.03	.02	.02	.02	......	....
Total malarial diseases:												
1916	12.19	5.56	12.52	12.54	10.86	.34	.39	.33	.33	.63	......	.
1915	12.37	7.18	12.62	12.86	6.56	.27	.40	.27	.27	.13	......	.
1914	10.74	9.68	10.79	11.05	2.19	.24	.37	.24	.24	.08	......	....
1913	8.62	5.45	8.79	8.82	7.67	.18	.16	.18	.18	.12	.02	....
1912	13.99	9.57	14.22	14.25	4.42	.29	.17	.30	.31	.06	......	....

ABLE No. 20.—*The 10 posts of more than 200 (officers and enlisted men) in the United States, continental (excluding Alaska), having the highest admission rates for malarial diseases, year 1916, compared with 1915.*

[Ratio per 1,000 of mean strength.]

	Mean strength.		Malarial diseases total ratio.	
	1916	1915	1916	1915
fferson Barracks, Mo	1,481	1,413	53.34	37.51
ort Sam Houston, Tex	2,135	1,293	30.45	17.79
ort Sill, Okla	925	1,182	27.03	26.23
ort Myer, Va	513	694	13.65	27.38
ort Screven, Ga	387	444	10.34	22.52
ort Leavenworth, Kans. (military prison)	316	272	9.49	22.06
ort Moultrie, S. C	358	397	8.38	73.05
'ashington Barracks, D. C	330	508	6.06	33.46
ort Caswell, N. C	201	290	4.98	17.24
ort D. A. Russell, Wyo	232	264	4.31	26.52

From the above table it will be noted that Fort Moultrie, S. C., vhich had an admission rate in 1915 of 73.05, this year shown 8.38 er 1,000, a remarkable reduction, due to the vigorous antimosquito ampaign that is being waged where mosquitoes are prevalent.

TUBERCULOSIS.

The following tabulation shows for the total American Army, and eparately for the different countries where the Army has been tationed continually, the case rate for tuberculosis (all forms) for nlisted men for the last seven years. In this tabulation all readmisions during each year have been eliminated, so that the actual ccurrence of tuberculosis (all) is shown:

Tuberculosis (all), enlisted men, case rates only.

Year.	United States.	Philippine Islands.	Alaska.	Hawaii.	Transports.	Panama.	China.	Total.
916	3.53	3.96		3.19	2.43	4.13	1.51	3.45
915	2.68	6.42	1.31	3.62	5.34	6.12	5.24	3.52
914	2.69	7.31	1.09	3.01	2.85	2.49	6.69	3.35
913	3.07	6.70	1.75	4.24	4.37	3.76	3.29	3.66
912	3.25	5.02	4.18	2.07	2.74			3.49
911	3.64	3.77	2.68	1.99	1.76			3.55
910	3.34	5.46	1.85	4.10	.80			3.65

The above tabulation shows that for the year 1916 the case rate or tuberculosis in the United States is higher than for any previous 'ear recorded with the exception of 1911, 3.64, being 3.53, as comared with 2.68 per 1,000 for 1915. The general rate for the Amerian Army was 3.45, which is slightly lower than for the year 1915. ll of the places shown in the tabulation have lower rates for 1916 han for the United States, with the exception of the Philippine slands and Panama, the rates for which are 3.96 and 4.13 per 1,000, s compared with 6.42 and 6.12 for 1915. The other places show a lecrease in their rates when compared with 1915 and, with the exeption of the Philippine Islands and Panama, show a decrease in ate for 1916 to that for the American Army.

The following tabulation shows for the total American Army and for those parts stationed in the United States and the Philippine Islands, the rates for tuberculosis (all) for discharges for disability, for deaths, and for noneffectiveness for the last four year

Tuberculosis (all) total American Army, United States and Philippine Islands, yea 1913 to 1916 (enlisted men).

	Year.	Discharged for disability.	Deaths.	Non-effectiv
Army, American troops	1916	2.20	.38	1.
	1915	1.79	.33	1.
	1914	2.07	.47	1.
	1913	2.26	.49	1.
American troops, United States	1916	1.94	.28	2.
	1915	1.67	.28	2.
	1914	2.10	.47	2.
	1913	2.16	.40	2.
American troops, Philippine Islands	1916	2.25	.95	.
	1915	3.28	.50	.
	1914	3.41	.28	.
	1913	3.95	.79	.

Table No. 21 gives the occurrence of tuberculosis at Army posts i the United States. Fort Sam Houston, Tex., shows the admission o 12 cases, the highest number reported; Vancouver Barracks shows cases admitted as against 7 in 1915. Forty-four more cases of thi disease occurred than during the year 1915, and an increase ove 1914 of 48 cases.

TABLE NO. 21.—*Tuberculosis (all) at Army stations, United States, continental (exclu ing Alaska), 1916, compared with 1915 and 1914, officers and enlisted men.*

	Admissions.					
	1916		1915		1914	
	Number.	Ratio per 1,000 of mean strength.	Number.	Ratio per 1,000 of mean strength.	Number.	Ratio p 1,000 of mean strength
Fort Sam Houston, Tex	12	5.62	7	5.41	5	4.
Fort McDowell, Cal	9	9.47	4	4.59	1	.
Fort Bayard, N. Mex	8	48.19	2	12.82	3	19.
Jefferson Barracks, Mo	6	4.05	4	2.83	2	1.
Fort Myer, Va	5	9.75	5	7.20	2	2.
Fort Greble, R. I	5	17.24				
Presidio of San Francisco, Cal	5	9.22	4	3.66	3	6.
Fort Bliss, Tex	5	3.73	5	6.08	4	5.
Fort Barrancas, Fla	4	9.30	2	3.14	1	1.
Letterman General Hospital, Cal	3	16.48	4	21.39	5	26.
Fort Worden, Wash	3	4.69	2	3.16	5	7.
Vancouver Barracks, Wash	3	4.69	7	7.31	1	.
Fort Leavenworth, Kans	3	6.16	2	2.47		
Fort D. A. Russell, Wyo	3	12.93				
Fort Sheridan, Ill	3	23.26	2	5.09	5	15.
Disciplinary Barracks, Leavenworth, Kans	3	9.49				
Fort Ethan Allen, Vt	3	4.76	2	2.30	1	1.
Fort Wadsworth, N. Y	3	8.90				
Hot Springs General Hospital, Ark	2	26.32	1	13.70	1	14.
Fort Sill, Okla	2	2.16	1	.85	3	2.
Fort McIntosh, Tex	2	5.48	1	2.61	3	6.
Fort Winfield Scott, Cal	2	2.10	3	2.73		
Fort Slocum, N. Y	2	1.71	4	3.11	3	2.
Fort Logan, Colo	2	3.28	2	3.50	3	4.

BLE No. 21.—*Tuberculosis (all) at Army stations, United States continental (excluding Alaska), 1916, compared with 1915 and 1914, officers and enlisted men*—Con.

	Admissions.					
	1916		1915		1914	
	Number.	Ratio per 1,000 of mean strength	Number.	Ratio per 1,000 of mean strength	Number.	Ratio per 1,000 of mean strength.
lumbus Barracks, Ohio	2	1.50	4	3.43	5	3.31
alter Reed General Hospital, D. C	1	7.81	2	14.81	6	42.86
rt Huachuca, Ariz	1	3.61	1	1.14	5	10.44
rt Riley, Kans	1	2.41	2	4.22	3	4.57
adison Barracks, N. Y	1	3.54	2	3.12	2	3.33
ort H. G. Wright, N. Y	1	1.55	5	7.32	3	4.49
ort Hancock, N. J	1	1.49	1	1.33	3	3.89
ort Hamilton, N. Y	1	1.98	2	3.18	2	3.28
ort Adams, R. I	1	1.94	3	5.04		
ort Ontario, N. Y	1	7.67	3	12.88		
ashington Barracks, D. C			3	5.91		
attsburg Barracks, N. Y			3	3.92	2	2.56
ort Monroe, Va			3	2.22	2	1.77
ort Baker, Cal			2	6.51	3	11.76
ort Wayne, Mich			1	58.82		
ort Hunt, Va			1	7.87		
ort Mott, N. J			1	6.94		
ort Washington, Md			1	6.94		
ort Constitution, N. H			1	6.58	1	7.14
ort Crockett, Tex			1	5.15		
ort Stevens, Oreg					4	11.40
ort Niagara, N. Y					3	10.56
ort Moultrie, S. C					3	6.40
ort McKinley, Me					3	4.78
esidio of Monterey, Cal			1	2.42	3	3.91
tations not included above had 2 cases each in 1916	10					
stations not included above had 1 case each in 1916	10					
stations not included above had 1 case each in 1915			19			
tations not included above had 2 cases each in 1914					8	
stations not included above had 1 case each in 1914					13	
order, field, miscellaneous	94		53		45	
Total	223	3.46	179	2.68	175	2.72

ABLE No. 22.—*Occurrence of tuberculosis (all) among American troops. Army, year 1916, by years of service, enlisted men.*

	Years of service.						Total.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth and over.	
nited States, continental (excluding Alaska):							
Mean strength							61,410
Admitted	58	22	37	24	14	62	217
Ratios per 1,000 of mean strength							3.53
Duty	4	5	3	2	2	13	29
Died	4	1	2	1	1	5	14
Discharged on certificate of disability	22	6	10	9	3	11	61
Otherwise		1	2	2	1	1	7
Remaining	28	9	20	10	7	32	106
anama Canal Zone:							
Mean strength							6,783
Admitted	6	8	8	1	2	3	28
Ratios per 1,000 of mean strength							4.13
Duty	1	1	1				3
Discharged on certificate of disability		2	1		1	1	5
Otherwise	1					1	2
Remaining	4	5	6	1	1	1	18

TABLE NO. 22.—*Occurrence of tuberculosis (all) among Amrican troops, army, yea 1916, by years of service, enlisted men*—Continued.

	Years of service.						Total
	First.	Second.	Third.	Fourth.	Fifth.	Sixth and over.	
Philippine Islands:							
Mean strength							11,5
Admitted	4	17	7	4	2	17	
Ratios per 1,000 of mean strength							4.
Duty		1					
Died						4	
Discharged on certificate of disability	1	7		1		1	
Otherwise			1		1	1	
Remaining	3	9	6	3	1	11	
Hawaii:							
Mean strength							8,4
Admitted	2	9	3	2	2	9	
Ratios per 1,000 of mean strength							3.
Duty		1				1	
Died			1	1		2	
Discharged on certificate of disability		2		1			
Otherwise		1					
Remaining	2	5	2		2	6	
Mexico:							
Mean strength							8,0
Admitted	1	4	4	3		4	
Ratios per 1,000 of mean strength							1.
Duty		2		1		1	
Died						2	
Otherwise		1					
Remaining	1	1	4	2		1	
Transports:							
Mean strength							8
Admitted	1	1					
Ratios per 1,000 of mean strength							2.
Died		1					
Remaining	1						
China:							
Mean strength							1,3
Admitted	1	1					
Ratios per 1,000 of mean strength							1.
Died		1					
Remaining	1						
Total:							
Mean strength							99,1
Admitted	73	62	59	34	20	95	3
Ratios per 1,000 of mean strength							3.
Duty	5	10	4	3	2	15	
Died	4	3	3	2	1	13	
Discharged on certificate of disability	23	17	11	11	4	13	
Otherwise	1	3	3	2	2	3	
Remaining	40	29	38	16	11	51	1

TABLE NO. 23.—*Undetermined fevers, 1916, by countries, officers, and enlisted me including Philippine Scouts and Porto Rican troops.*

Diseases.	United States (continental), excluding Alaska.	Mexico.	Alaska.	Hawaii.	Philippine Islands.	Canal Zone, Panama.	China.	Porto Rico.	Army transports.	Tota
Febricula	92				71			4	9	1
Fever, simple, continued										
Fever, type undetermined	183	202		3	22	22		34	1	4
Ephemeral fever										
Total	275	202		3	93	22		38	10	6
Ratio per 1,000 of mean strength	4.27	24.21		.34	5.22	3.13		38.35	11.36	5.

From the above table it will be noted that the admission rate for se fevers in the United States was 4.27 per 1,000 of mean strength. e same rate for 1915 was 1.65, that for 1914 was 1.49, and for 13, 2.65 per 1,000. Porto Rico has the highest admission rate for s class of fevers, 38.35 per 1,000; Mexico comes next with 24.21 1,000. The rates for the United States, Hawaii, Philippine ands, and Canal Zone are lower than the total rate for these fevers. might be well to again state, as in previous reports, that in ques- ns of doubt procedures are used in the laboratory diagnosis of hoid and paratyphoid fevers so as to exclude any possibility of erlooking these two diseases.

MENTAL ALIENATION (ENLISTED MEN).

It is impracticable to compare the admission rate for this class of sturbances with the rate for diseases formerly classified and pub- hed under the term "insanity." The diseases included under the m "mental alienation" used in the present nomenclature, which s put into use January 1, 1912, include several conditions not ken into consideration under the term "insanity," such as defective d mental development, constitutional psychopathic state, hypo- ondriasis, and nostalgia. The case admission rate for mental enation (all) for 1916 for the United States was 3.73 per 1,000, and e discharge rate 2.65, as compared with 3.04 per 1,000 for the mission rate and 2.54 for discharge rate during the year 1915. e admission and discharge rates for the entire Army for 1916 were 5 and 2.61 per 1,000, respectively.

ALCOHOLISM.

The admission rate for alcoholism in the United States for the ar 1916 was 12.33 per 1,000, which is lower than for the preceding ar, when it was 13.07. It is exceedingly gratifying to note that ere has been a steady decrease in this rate since 1907, when the te was 36.09, before which year there was a steady increase for ht years. The rate for 1916 is the lowest on record in the Army ce the year 1870. As it has been stated before, the rates given e not representative of the true amount of temperance existing in e Army, but as they are all calculated from similar data, i. e., the mber of cases in which medical assistance intervenes, they are eful as indices of alcoholic excesses. There can be no doubt but at this remarkable decrease in the rates is properly attributable the effect produced by the act of Congress in stopping the pay of icers and enlisted men when incapacitated for duty because of kness due to drug addiction, alcoholism, or other misconduct.

Smallpox, 1916.

Rank and organization.	Age.	Station.	Date taken sick.	Date of successful vaccination.	Date of unsuccessful vaccination.	Disposition.	Length of service.	Date of enlistment.	Probable source of infection.	Previous attack.	Remarks.
Mexico:			1916.								
Major, Thirteenth Cavalry.	49	Cruces, Mexico...	June 14	....	....	Transferred to El Valle, Mexico, and Columbus, N. Mex.	30 years.....	....	....	....	Columbus, N. Mex., cured July 14, 1916.
American troops:											
Private, Company F, Ninth Cavalry.	28	Manila, P. I.....	Feb. 10	....	....	Duty, Feb. 12, 1916.	7 years 9 months.	....	....	....	No information of vaccination found.
Philippine Scouts:											
Corporal, Fifty-first Company.	28	Augur Barracks, P. I.	Apr. 10	July 5, 1915, Augur Barracks, P. I.	Aug. 28, 1911...	Died Apr. 22, 1916.	6 years 9 months.	....	Through contact with civil population in Jolo and vicinity.	None.	
Private, Fifty-second Company.	22	....do....	Apr. 15	Mar. 30, 1915, Augur Barracks, P. I.	None..........	Duty, May 10, 1916.	1 year.......	....	....do..........	...do..	
Do..........	23	....do....	Apr. 17	July 17, 1915, Augur Barracks, P. I.	....do........	Duty, May 31, 1916.	9 months....	....	....do..........	...do..	
Do..........	21	....do....	Apr. 18	Nov. 18, 1915, Augur Barracks, P. I.	....do........	Duty, May 10, 1916.	5 months....	....	....do..........	...do..	
Private, Seventeenth Company.	22	....do....	Apr. 22	June 26, 1915, Augur Barracks, P. I.	....do........	Duty, May 16, 1916.	9 months....	....	....do..........	...do..	
Private, Fifty-first Company.	24	....do....	Apr. 27	Apr. 11, 1916, Augur Barracks, P. I.	May 26, 1913, protected.	Duty, May 22, 1916.	2 years 11 months.	....	....do..........	...do..	
Private, Fifty-second Company.	21	....do....	July 17	None..........	July 10, 1916, Augur Barracks, P. I.	Duty, Aug. 14, 1916.	6 months....	....	....do..........	...do..	
Private, Fifty-first Company.	23	....do....	Aug. 22	Sept. 29, 1914, Augur Barracks, P. I.	Apr. 11, 1916, Augur Barracks, P. I.	Duty, Sept. 30, 1916.	1 year 11 months.	....	....do..........	...do..	
Private, Second Company.	28	....do....	Dec. 17	....	....	Duty, Jan. 13, 1917.	8 years 2 months.	....	....do..........	....	Do.

SMALLPOX.

No cases of smallpox occurred within the United States proper ring the year.

MEASLES.

During the year 1916, 1,247 cases of measles occurred in the Army the United States, with 9 deaths and 2 discharges. In 1915 there re 555 cases, with 20 deaths and 8 discharges. The depots having e highest number of admissions for the year were Columbus rracks, Ohio, with 400 cases and 7 deaths, and Jefferson Barracks, ., with 319 cases and 1 death. The mean strengths during the ar at the above-mentioned depots were: Columbus Barracks, 331; Jefferson Barracks, 1,481.

The diversion of accepted applicants to other stations resulted in e disease assuming no greater proportions than shown at Columbus rracks. With the advent of milder weather the change in habitat m the barracks to out-of-door life usually marks a decline in the idence of the disease, which would tend to bear out the contention at crowding is a very material factor in the spread of this disease.

CEREBROSPINAL MENINGITIS.

Eighteen cases of this disease, with 9 deaths, occurred during the ar 1916 in the United States. In 1915 there were 23 cases with leaths.

INFLUENCE OF STATION.

The posts having the highest admission rates, from all causes, were: rts Sam Houston, Tex., with a rate of 1,120.84; Oglethorpe, Ga., th a rate of 1,072.73; Crockett, Tex., 1,064.66; Greble, R. I., 03.45; and Bliss, Tex., 994.03.

The posts having the highest noneffective rate for the year 1916 re: Forts Bliss, Tex.; Huachuca, Ariz.; Sam Houston, Tex.; attsburg Barracks, N. Y.; and Crockett, Tex.; in the order named. e rates from all causes were 188.71, 81.68, 68.41, 36.94, and 33.55 r 1,000, respectively. The average number of days' treatment each case was as follows: Forts Bliss, 69.48; Huachuca, Ariz., .76; Sam Houston, 22.34; Plattsburg Barracks, 17.96; Crockett, x., 11.53.

The five posts having the lowest admission rate, from all causes, ring the year, were: Forts Casey, Wash., 315.48; West Point, Y., 353.57; Flagler, Wash., 386.04; Stevens, Oreg., 407.05; and rry, N. Y., with 426.91 per 1,000.

The posts having the lowest noneffective rates, from all causes, with eir rates, were: Forts Hamilton, N. Y., 8.88; West Point, 9.07; Intosh, Tex., 11.51; Flagler, Wash., 12.54; Worden, Wash., 12.56 r 1,000. The average number of days' treatment for each case s 6.59, 9.39, 5.78, 11.89, and 9.79, respectively.

Of the recruiting depots Columbus Barracks, Ohio, the highest mission rate from all causes, 1,384.67, and Fort McDowell, Cal., e lowest, 841.05, per 1,000; Jefferson Barracks, Mo., had the highest erage number of days' treatment for each case, 12.57, also highest noneffective rate from all causes, 41.47 per 1,000, and Fort McDowel Cal., the lowest, 4.71. The highest death rate occurred at Fo Logan, Colo., being 11.49 per 1,000, and the lowest at Fort Slocum N. Y., 1.72.

The Western Department, as last year, had the lowest admissio rate, 525.71 per 1,000, as compared with 556.47 for 1915, with t exception of the independent stations, which had a rate of 491. per 1,000, as compared with 508.43 per 1,000 for 1915. An increa is noted in the Eastern Department, whose rate for 1916 was 668.7 as compared with 654.32 per 1,000 for 1915. The rate for the recru depots remains high, and is still higher than for 1915, being 1,124. for 1916, as compared with 1,070.17 per 1,000 for 1915.

The Western Department has the lowest noneffective rate, 10. per 1,000, for the year 1916, as compared with 11.82 for the ind pendent stations, 16.12 for the Mexican border, and 18.03 for t Eastern Department.

The Western Department had the lowest death rate, 2.16 per 1,0 for 1916, as compared with 6.26 for 1915, and the Eastern, t Mexican border, the Central, and the Southern next in order with 2. 4.34, 7.82, and 12.65 per 1,000, respectively.

Tables Nos. 24 and 25 show the posts having the highest and t lowest ratios of admission and noneffectiveness in the United Stat as a whole.

INFLUENCE OF RACE.

The colored troops (enlisted) had higher rates than the white f noneffective and discharges, being 100.52 and 31.36, as compared wi 29.72 and 16.56 per 1,000, respectively, for 1916. The respecti rates for 1915 were 31.26 and 22.96, as compared with 25.52 and 13. The admission rate for white troops was lower than for the color being 743.40, as compared with 890.23.

For venereal diseases the admission rate for the white troops w 90.34, and for the colored 156.82 per 1,000 for 1916; for alcoholi the rate for the white troops was 12.84, and for the colored 7. for tuberculosis (all kinds) for the white was 3.47, and for the color 8.44; for bronchitis the rate for white was 36.98, and for color 31.36; for diarrhea and enteritis the rate for white was 38.44, a for colored 22.92; and for tonsillitis, acute follicular, the rate white was 48.13, and for colored 130.28. The relative prevale of the other diseases in the two races with comparisons are sho in Table No. 7.

Chart R.—United States. Officers and men.

[Admission rates for typhoid fever, undetermined fever, and malarial fevers, years 1906–1916.]

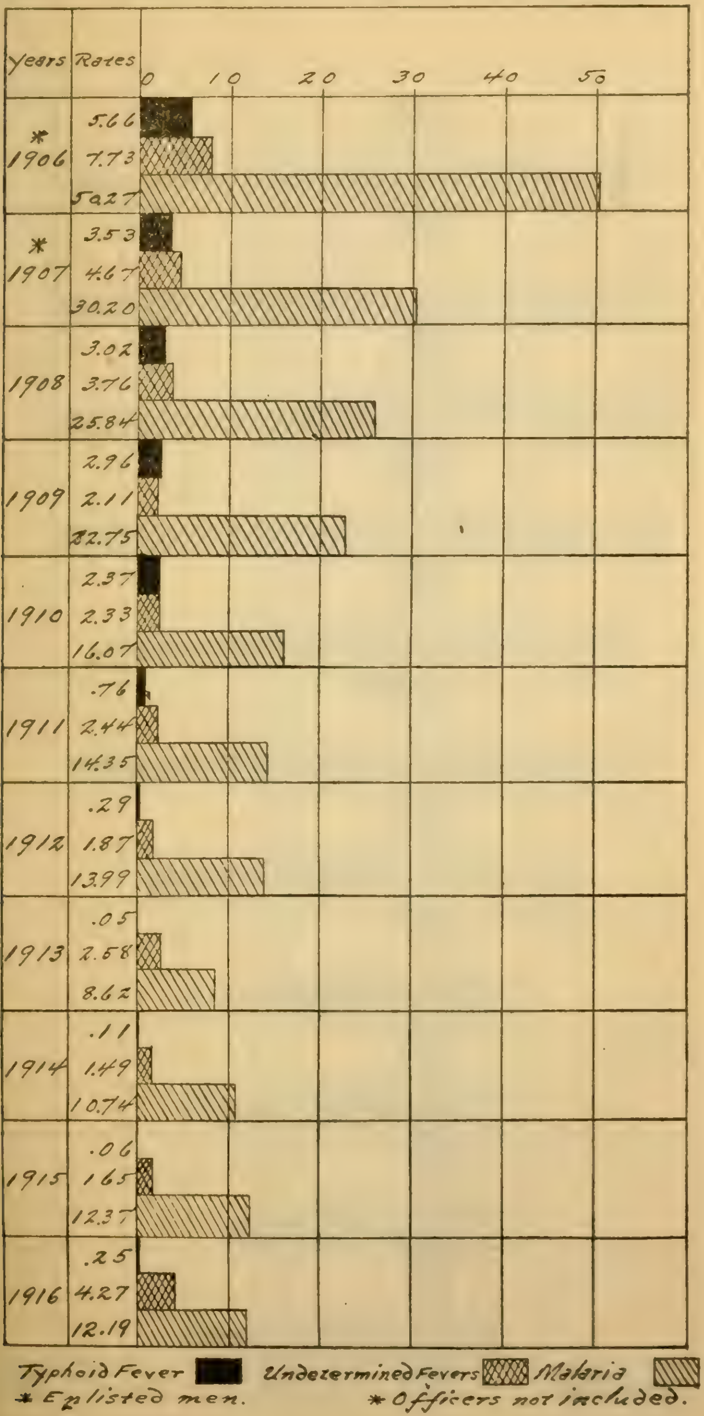
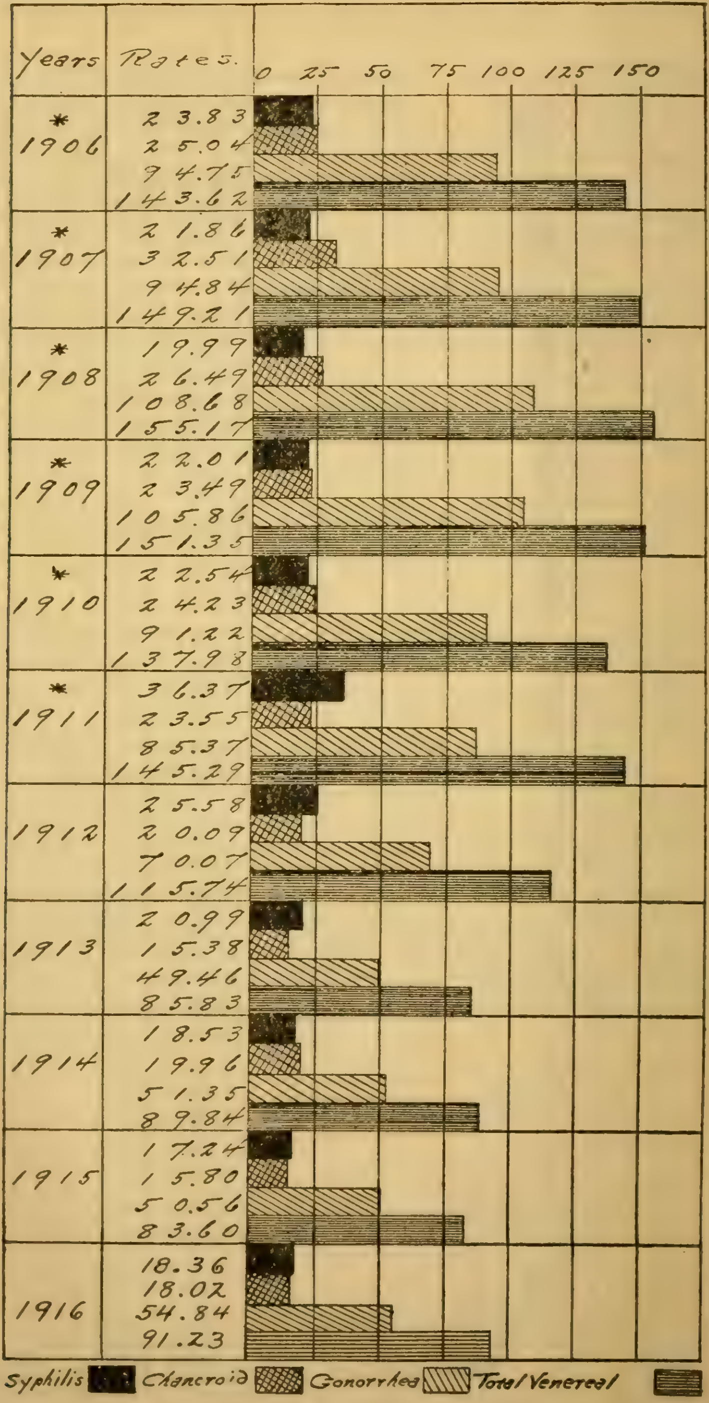


Chart S.—United States. Enlisted men.

[Admission rates for syphilis, chancroid, gonorrhea, and total venereal, years 1906–1916.]



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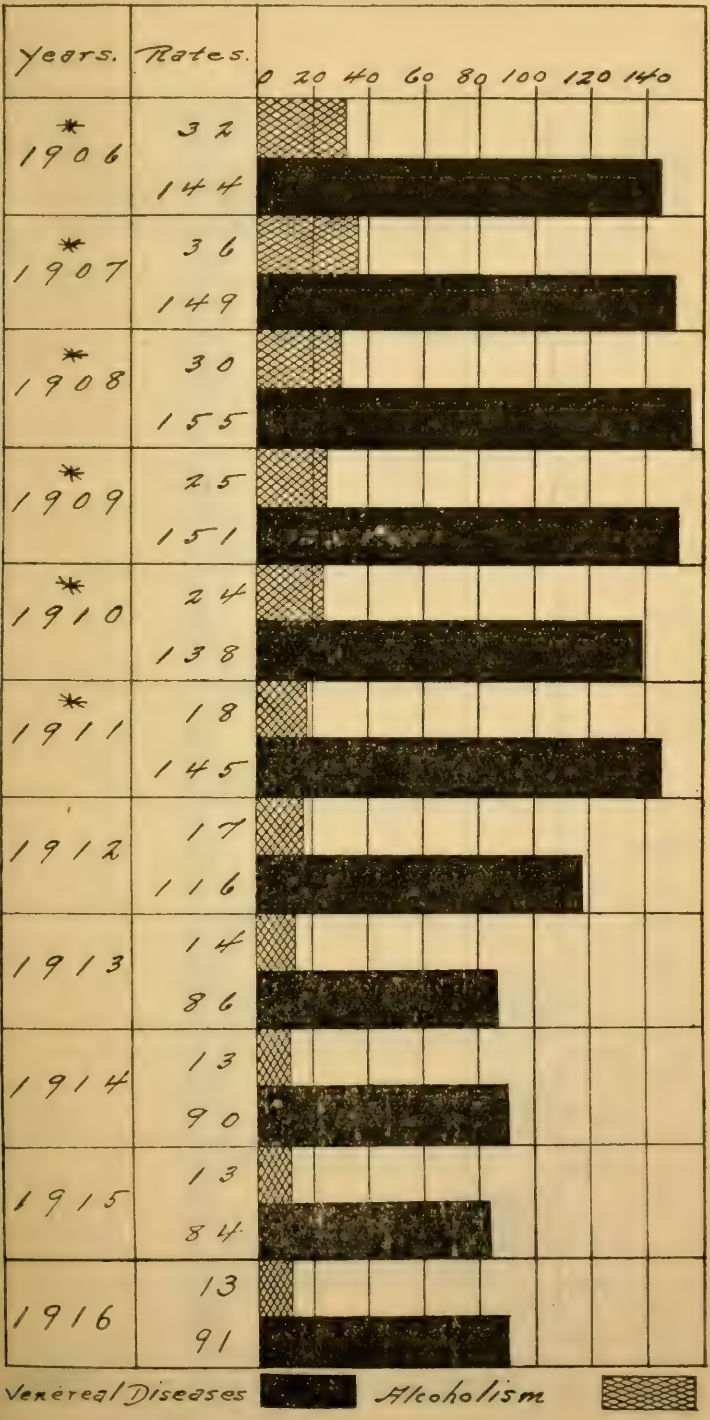
*Readmitted cases deducted to correspond with figures for years preceding 1906, and 1912 to 19

Chart T.—United States. Enlisted men.

[Admission rates for venereal diseases and alcoholism, years 1906–1916.]



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* Readmitted cases deducted to correspond with figures for years preceding 1906, and 1912 to 1916.

Chart U.—United States. Officers and men.

[Admission and noneffective rates for malarial fevers, years 1906–1916.]

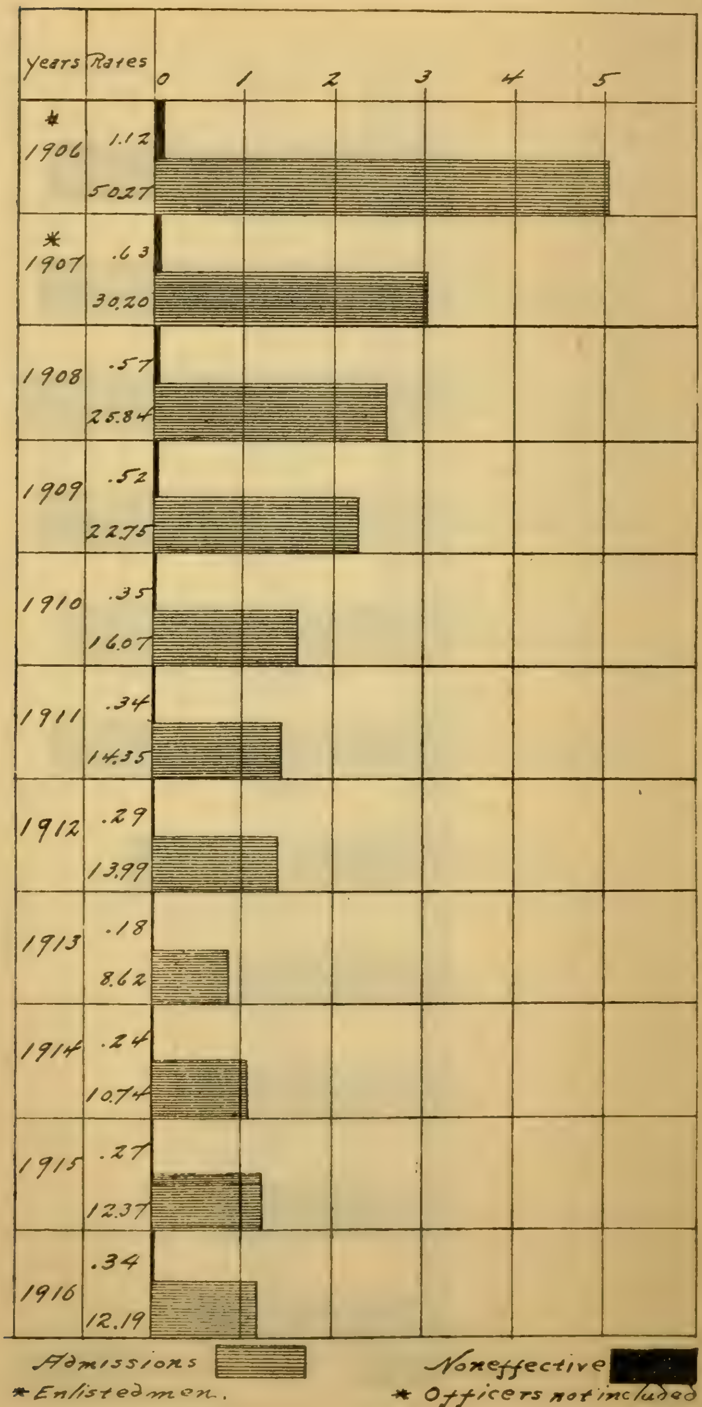

Chart V.—Army. Officers and American and native troops.

[Admission and death rates for tuberculosis, years 1906–1916.]

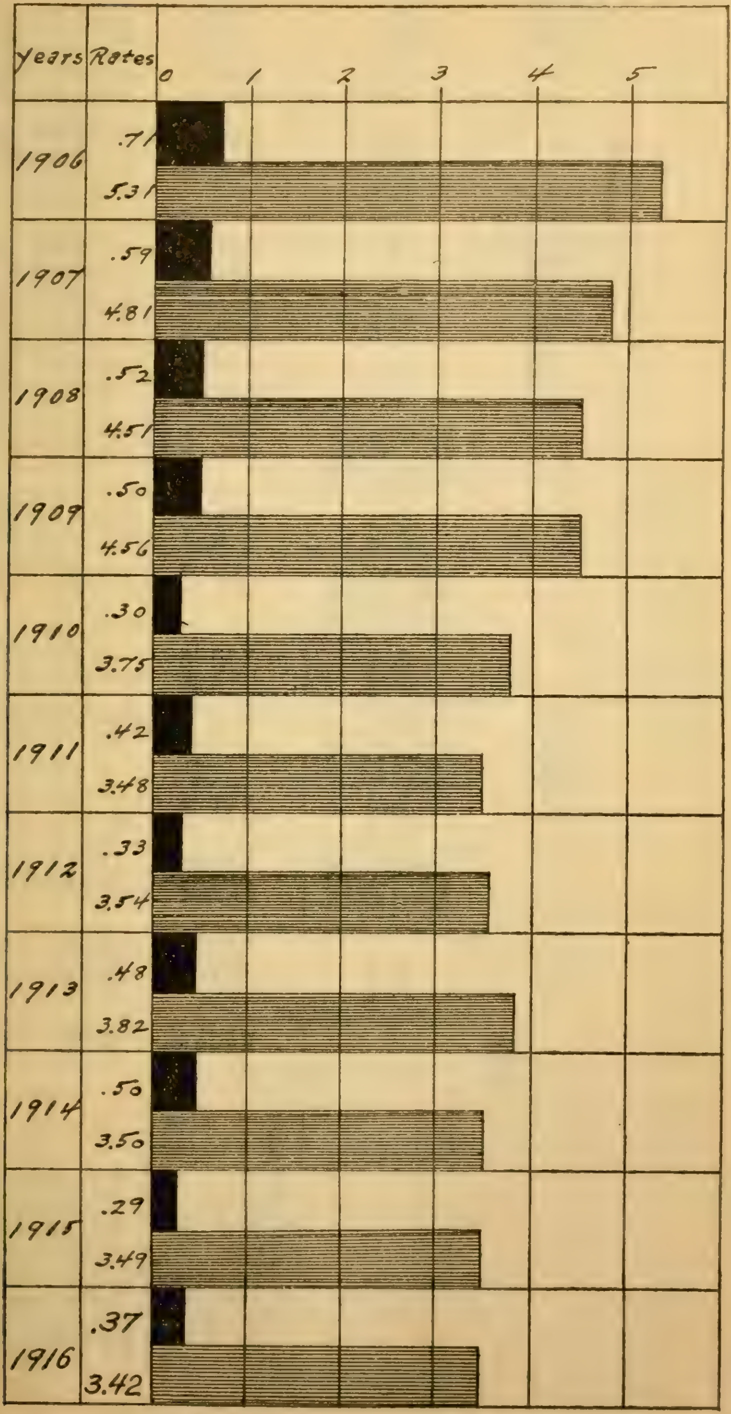

TABLE No. 24.—*Posts of the United States having the highest admissions and noneffective rates per 1,000 of mean strength among those having a total strength of over 200 officers and men, year 1916.*

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective rate.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism. and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Posts in order of highest admission rates from all causes:																	
Fort Sam Houston, Tex.	2,135	1,120.84	755.04	88.11	56.29	7.03	3.75	95.14	60.04	68.41	65.94	35.79	......	25.04	22.34	13.10	17.35
Fort Oglethorpe, Ga.	330	1,072.73	709.09	3.15	3.15	6.06	3.03	9.21	6.18	44.44	42.50	24.18	......	16.26	15.16	8.85	12.48
Fort Crockett, Tex.	232	1,064.66	564.67	9.01	9.01	17.24	4.31	26.25	13.32	33.55	33.01	17.75	......	12.28	11.53	6.50	11.50
Fort Greble, R. I.	290	1,003.45	720.69	......	......	......	......	......	......	24.96	20.90	19.17	......	9.14	9.11	7.02	9.74
Fort Bliss, Tex.	1,341	994.03	638.33	69.26	42.02	27.59	16.40	96.85	58.42	188.71	186.27	100.68	......	69.07	69.48	36.85	57.73
Posts in order of highest admission rates, excluding venereal diseases, injuries, etc.:																	
Fort Sam Houston, Tex.	2,135	1,120.84	755.04	88.11	56.29	7.03	3.75	95.14	60.04	68.41	65.94	35.79	......	25.04	22.34	13.10	17.35
Fort Andrews, Mass.	325	984.62	738.46	3.16	3.16	......	......	3.16	3.16	20.47	18.32	15.98	......	7.49	7.61	5.85	7.92
Fort Greble, R. I.	290	1,003.45	720.69	......	......	......	......	......	......	24.96	20.90	19.17	......	9.14	9.11	7.02	9.74
Fort Oglethorpe, Ga.	330	1,072.73	709.09	3.15	3.15	6.06	3.03	9.21	6.18	44.44	42.50	24.18	......	16.26	15.16	8.85	12.48
Fort D. A. Russell, Wyo.	232	892.24	706.90	26.79	26.79	8.62	8.62	35.41	35.41	33.41	30.63	25.10	......	12.23	13.70	9.19	12.99
Posts in order of highest noneffective rates from all causes:																	
Fort Bliss, Tex.	1,341	994.03	638.33	69.26	42.02	27.59	16.40	96.85	58.42	188.71	186.27	100.68	......	69.07	69.48	36.85	57.73
Fort Huachuca, Ariz.	277	577.62	379.06	70.90	41.04	10.83	3.61	81.73	44.65	81.68	75.73	48.27	......	29.90	51.76	17.67	46.61
Fort Sam Houston, Tex.	2,135	1,120.84	755.04	88.11	56.29	7.03	3.75	95.14	60.04	68.41	65.94	35.79	......	25.04	22.34	13.10	17.35
Plattsburg Barracks, N. Y.	473	752.64	422.83	8.85	8.85	4.23	4.23	13.08	13.08	36.94	34.09	19.25	......	13.52	17.96	7.04	16.66
Fort Crockett, Tex.	232	1,064.66	564.67	9.01	9.01	17.24	4.31	26.25	13.32	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]

eases, injuries, etc.:																
Fort Bliss, Tex	1,341	994.03	638.33	69.26	42.02	27.59	16.40	96.85	58.42	188.71	186.27	100.68	......	69.07	69.48	36.85	57.73
Fort Huachuca, Ariz	277	577,62	379.06	70.90	41.04	10.83	3.61	81.73	44.65	81.68	75.73	48.27	......	29.90	51.76	17.67	46.61
Fort Sam Houston, Tex	2,135	1,120.84	755.04	88.11	56.29	7.03	3.75	95.14	60.04	68.41	65.94	35.79	......	25.04	22.34	13.10	17.35
Fort D. A. Russell, Wyo	232	892.24	706.90	26.79	26.79	8.62	8.62	35.41	35.41	33.41	30.63	25.10	......	12.23	13.70	9.19	12.99
Fort Oglethorpe, Ga	330	1,072.73	709.09	3.15	3.15	6.06	3.03	9.21	6.18	44.44	42.50	24.18	......	16.26	15.16	8.85	12.48

TABLE NO. 25.—*Posts of the United States having the lowest admission and noneffective rates per 1,000 of mean strength among all those having a total strength of over 200 officers and men, year 1916.*

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective rate.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Posts in order of lowest admission rates from all causes:																	
Fort Casey, Wash.	336	315.48	196.43	9.12	6.10	......	....	9.12	6.10	12.57	9.99	8.70	......	4.60	14.58	3.18	16.21
West Point, N. Y.	840	353.57	250.00	9.74	8.34	2.38	1.19	12.12	9.53	9.07	6.79	5.30	......	3.32	9.39	1.94	7.76
Fort Flagler, Wash.	272	386.04	238.97	3.80	3.80	3.68	3.68	7.48	7.48	12.54	10.47	6.76	......	4.59	11.89	2.47	10.35
Fort Stevens, Oreg.	312	407.05	243.59	......	....	......	....	......	....	13.35	11.64	6.85	......	4.89	12.01	2.51	10.29
Fort Terry, N. Y.	602	426.91	305.65	3.41	3.41	......	....	3.41	3.41	13.73	12.51	8.50	......	5.03	11.77	3.11	10.17
Posts in order of lowest admission rates, excluding injuries, etc.:																	
Fort Casey, Wash.	336	315.48	196.43	9.12	6.10	......	....	9.12	6.10	12.57	9.99	8.70	......	4.60	14.58	3.18	16.21
Fort Flagler, Wash.	272	386.04	238.97	3.80	3.80	3.68	3.68	7.48	7.48	12.54	10.47	6.76	......	4.59	11.89	2.47	10.35
Fort Stevens, Oreg.	312	407.05	243.59	......	....	......	....	......	....	13.35	11.64	6.85	......	4.89	12.01	2.51	10.29
West Point, N. Y.	840	353.57	250.00	9.74	8.34	2.38	1.19	12.12	9.53	9.07	6.79	5.30	......	3.32	9.39	1.94	7.76
Vancouver Barracks, Wash.	640	468.75	287.50	4.85	4.85	4.69	4.69	9.54	9.54	13.77	12.72	6.86	......	5.04	10.75	2.51	8.73
Posts in order of lowest noneffective rates from all causes:																	
Fort Hamilton, N. Y.	505	493.07	354.45	14.31	14.31	1.98	1.98	16.29	16.29	8.88	5.65	6.10	......	3.25	6.59	2.23	6.30
West Point, N. Y.	840	353.57	250.00	9.74	8.34	2.38	1.19	12.12	9.53	9.07	6.79	5.30	......	3.32	9.39	1.94	7.76
Fort McIntosh, Tex.	365	728.77	468.50	......	....	24.66	8.22	24.66	8.22	11.51	10.10	5.77	......	4.21	5.78	2.11	4.51
Fort Flagler, Wash.	272	386.04	238.97	3.80	3.80	3.68	3.68	7.48	7.48	12.54	10.47	6.76	......	4.59	11.89	2.47	10.35
Fort Worden, Wash.	639	469.48	345.85	19.45	16.21	3.13	1.56	22.58	17.77	12.56	12.13	8.62	......	4.60	9.79	3.15	9.12

Posts in order of lowest noneffective rates, excluding injuries, etc.:																	
West Point, N. Y.	840	353.57	250.00	9.74	8.34	2.38	1.19	12.12	9.53	9.07	6.79	5.30	......	3.32	9.39	1.94	7.76
Fort McIntosh, Tex.	365	728.77	468.50	......	......	24.66	8.22	24.66	8.22	11.51	10.10	5.77	......	4.21	5.78	2.11	4.51
Fort Hamilton, N. Y.	505	493.07	354.45	14.31	14.31	1.98	1.98	16.29	16.29	8.88	5.65	6.10	......	3.25	6.59	2.23	6.30
Fort Lawton, Wash.	252	710.32	428.57	......	......	3.97	......	3.97	......	16.67	16.53	6.74	......	6.10	8.59	2.47	5.76
Fort Flagler, Wash.	272	386.04	238.97	3.80	3.80	3.68	3.68	7.48	7.48	12.54	10.47	6.76	......	4.59	11.89	2.47	10.35
Recruit depots:																	
Columbus Barracks, Ohio.	1,331	1,384.67	1,042.82	14.58	13.81	9.02	9.02	23.60	22.83	35.06	33.97	25.17	......	12.83	9.27	9.21	8.83
Fort Logan, Colo.	609	1,269.29	952.38	18.64	16.95	11.49	6.57	30.13	23.52	36.29	34.46	23.46	......	13.28	10.46	8.59	9.02
Jefferson Barracks, Mo.	1,481	1,207.29	836.60	22.04	19.97	2.70	1.35	24.74	21.32	41.47	41.20	27.31	......	15.18	12.57	9.99	11.94
Fort Slocum, N. Y.	1,162	878.66	620.48	25.55	23.79	1.72	.86	27.27	24.65	20.32	20.13	13.01	......	7.44	8.46	4.76	7.67
Fort McDowell, Cal.	950	841.05	615.79	1.07	1.07	4.21	1.05	5.28	2.12	4.71	3.55	3.80	......	1.73	2.05	1.39	2.26

TABLE No. 26.—*Influence of disease on enlisted men, American troops, serving in th United States, by arms of service, for year 1916.*

	Mean strength.	Admitted.	Discharged on certificate of disability.	Died.	Constantly non-effective.	Ratio per 1,000 of mean strength.			
						Admitted.	Discharged on certificate of disability.	Died.	Constantly non-effective
Infantry	16,730	12,472	625	102	537.19	745.49	37.36	6.10	32.1
Cavalry	8,782	7,846	244	66	356.41	893.42	27.78	7.52	40.5
Coast Artillery	13,999	9,459	280	62	364.89	675.69	20.00	4.43	26.0
Field Artillery	3,471	3,158	95	19	117.27	909.82	27.37	5.47	33.7
Engineers	927	811	52	5	56.14	874.86	56.10	5.39	60.5
Ordnance	639	350	4	4	11.98	547.73	6.26	6.26	18.7
Signal Corps	1,056	616	24	5	27.30	583.33	22.73	4.73	25.8
Hospital Corps	3,739	2,685	114	19	100.30	718.11	30.49	5.08	26.8
All others	12,067	8,377	187	66	312.23	694.21	15.50	5.47	25.8
Total	61,410	45,774	1,625	348	774.42	745.38	26.46	5.67	28.8

TABLE No. 27.—*Periodic prevalence of epidemic diseases and pneumonia in the Unite States; also the number of gunshot cases and killed in action, by months.*

Months.	Typhoid.		Paratyphoid.		Smallpox.		Measles.		Diphtheria.		Cerebrospinal meningitis.		Pneumonia.		Gunshot wounds.		Killed and wounded in action.	
	No. 1.		No. 2.		No. 12.		No. 14.		No. 17.		No. 108.		No. 208.		No. 396.		No. 462-6	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1916.																		
January	....	....	....	....	....	....	31	....	5	....	....	....	15	3	15	10	....	....
February	2	1	....	....	....	....	52	....	1	....	1	1	14	1	13	6	....	1
March	1	1	1	....	....	....	55	....	4	....	1	....	15	3	12	4	1	1
April	....	....	....	....	....	....	113	1	2	....	4	2	11	3	24	5	....	....
May	....	....	2	....	....	....	179	....	....	....	....	....	12	1	26	13	....	....
June	1	....	....	....	....	....	92	....	1	....	2	....	9	....	40	7	6	4
July	3	....	1	....	....	....	136	2	1	....	1	1	8	....	25	3	....	....
August	1	....	2	....	....	....	86	....	1	....	1	1	4	2	18	....	....	....
September	....	....	8	....	....	....	183	1	5	....	....	....	8	3	27	9	....	....
October	7	1	7	....	....	....	120	....	4	....	1	1	13	....	28	5	....	....
November	1	....	1	....	....	....	74	4	4	....	5	2	15	3	23	9	....	....
December	....	....	....	....	....	....	126	1	5	....	2	1	40	5	30	9	....	....
Total	16	3	22	....	....	....	1,247	9	33	....	18	9	164	24	281	80	7	6

GENERAL SANITATION.

CONTROL OF COMMUNICABLE DISEASES.

1. In carrying out effective sanitary measures in the military servce, particular attention should be paid to certain of the communicable diseases. The following notes are published for the information and guidance of medical officers and others whose duties impose upon them the prevention of disease among the troops of the United States.

2. The practice of modern sanitary science may be summarized in the statement that its main object is to seek the sources amongst nfected persons and animals whose excreta or other constituents or body contents enter the bodies of other persons. Its main postulate is that the routes of infection are simply the routes of infected bodily discharges, which are the routes of ordinary uninfected discharges in ordinary life.

3. The influence of environment depends upon whether or not it permits of or necessitates the exchange of human discharges. Overcrowding, if combined with lack of discipline and order and lack of facilities for washing, especially of the hands, contributes to the spread of infection, not of itself, but only if infection be introduced nto the community. Overcrowding, if there is discipline and intelligence with proper precautions to avoid the exchange of excreta, does not spread infection even if it be introduced.

4. Water, food, flies, and milk are the main public routes of gastrontestinal infection from individuals to group, and from group to group. Contact is the great private route from individual to individual. Contact infection radiates directly from the infected person through nose, mouth, bladder, and bowel discharges. The great route of exchange is by smears on the hands, although mouth spray and sputum also act in many diseases. If we classify the chief communicable diseases of the temperate zone by their principal routes of infection we plainly see that of all the routes, contact alone is common to all diseases.

5. A program of military sanitation should aim—

(*a*) To secure to each individual continuously the highest possible health.

(*b*) To secure to each, instruction, and training in personal conduct in order to avoid receiving into his body the discharges of infected persons.

(*c*) To secure to each specific immunization.

These three measures place the abolition of infection directly upon the individual. The three following place the abolition of infection upon experts who deal directly with the infection itself:

(*a*) The supervision of the four great public routes of infection to exclude all bodily discharges from them.

(*b*) The supervision of all known infectious cases to exclude their discharges from all routes.

(*c*) The sociological supervision of all infected persons.

TYPHOID FEVER.

Cause.—The bacterial cause of typhoid fever is a rod-shaped microorganism or germ called the typhoid bacillus.

Nature.—Typhoid fever is chiefly a filth disease, and is widely distributed over the world. The typhoid bacillus is present in the feces and urine of all persons who are ill with the disease and of certain persons who have long recovered from it. The latter persons are referred to as carriers of the bacilli, or typhoid carriers.

Means of communication.—Lack of care in the disposal of the excreta and want of personal cleanliness are the chief sources of the disease. A faulty method of disposing of feces and urine may lead to contamination of drinking water, milk, or other food directly or through the agency of flies.

Human excrement should be properly disposed of, breeding places of flies destroyed, food supplies protected, and persistent warfare against the fly unceasingly carried on.

Sources of the disease in military camps.—The commonest mode of infection in military establishments is through personal contact, especially by means of the hands, with individuals who harbor the typhoid bacillus. Sometimes this contact is direct, sometimes indirect. About 60 per cent of the cases are believed to arise in this manner.

The direct instances are those in which infection follows upon personal association with an infected person or carrier. The indirect ones are such as from clothing, bedding, water, milk, or other food, and the dishes or drinking cup of an infected person.

The carrier is therefore, because unsuspected and more insidious, a greater source of danger than the sick person. The medical officer should be on the alert to suspect and detect him. Once detected, he requires particular care in respect to isolation and treatment. The carriers who handle or prepare food are especially dangerous. In order to avoid increase in carriers, no patient convalescent from typhoid fever should be released until three successive examinations of the stools and urine, collected at six-day intervals, have shown him to be free from typhoid bacilli.

Personal precautions to be observed.—From what has been stated it is obvious that habits of personal cleanliness are to be encouraged in every way. Bathing should be frequent, the washing of the hands before eating and after visiting the latrine should be obligatory, and due attention paid to the laundering of underclothing. The eating and other utensils used by persons sick of typhoid fever and carriers of the typhoid bacilli should be promptly sterilized.

PARATYPHOID FEVER.

Causes.—Like typhoid fever, paratyphoid fever is produced by bacteria. Two bacilli, known as paratyphoid A and B, are its bacterial causes.

Nature.—Paratyphoid fever, like typhoid fever, is a filth disease and as such is to be dealt with precisely as is typhoid fever. In addition, the paratyphoid bacilli B occur in animals and may be present in their flesh. Hence, such infected foods when improperly cooked or preserved may give rise to paratyphoid fever. This form the disease constitutes one of the kinds of food or meat poisoning. althy carriers of the paratyphoid bacillus also exist.

Vaccination.—Typhoid vaccination does not protect against para- phoid infection. It is therefore necessary to vaccinate against ratyphoid as well as against typhoid fever. For this purpose a ccine is supplied containing both the A and B bacilli. It is ected in the same manner as the typhoid bacillus vaccine.

Distinction between typhoid and paratyphoid fever.—These two kinds fever are often indistinguishable clinically. But laboratory test ethods serve to distinguish them from each other. Every case of determined fever, and every case of clinical typhoid or paraty- oid fever should have a blood culture made not later than the th day, this culture to be examined at an Army laboratory, unless ecific authority to do otherwise is given by the Surgeon General's fice. A subculture from any positive blood culture will be sent to e nearest department laboratory for confirmation and record.

Typhoid and paratyphoid vaccination.—All persons entering the ilitary service will be vaccinated against typhoid and paratyphoid vers, under the direction of a medical officer, as soon as practicable ter entrance. Exception may be made in the case of persons over years of age, and when the occurrence of a previous attack of phoid fever or a complete course of vaccination within three years established to the satisfaction of the responsible medical officer.

Officers under 45 years of age will be revaccinated after three years, d enlisted men on reenlistment.

Vaccination will consist of a series of three injections given exactly in the first series.

Recruits will be vaccinated at places of enlistment, unless, because special assignment or other reason, the men are not to remain at e station long enough to allow the completion of the course, in hich event the vaccination will be completed immediately after they in the organizations or stations to which they are assigned. On e service record of every recruit or reenlisted man will be noted Typhoid and paratyphoid vaccination completed (date) -------." or Typhoid and paratyphoid vaccination not administered," as the se may be. In the latter case, company and detachment com- anders will see that the vaccination is begun immediately after the en join the organizations or stations to which assigned.

Civilian employees who are subject to field service of any kind, cluding those on transports and in the mine-planter service, will vaccinated as soon as employed.

Records will be kept of all officers, soldiers, and civilians in the ilitary service who receive the antityphoid and antiparatyphoid ccinations, giving the dates of vaccination.

The following directions for vaccination against typhoid and ratyphoid fevers are published here for the information of medi- l officers:

The first dose is ½ c. c. (7½ m.); the second and third are each c. c. (15 m.). An interval of at least seven days should elapse tween doses. This interval may be extended to the fourteenth y in case of necessity.

The site of inoculation is the arm at the insertion of the deltoid uscle. If for any reason this site can not be used, the needle may introduced into the back over the lower portion of the scapula, or in the chest below the clavicle. The dose is to be given subc taneously and not into the muscles nor into the skin. The arm shou be cleansed as for any other operation. Tincture of iodine painte over the dry skin, before and after the injection, has proved sati factory.

The ampule should be washed off in an antiseptic solution an opened after making one or more cuts near the top with a file. Th vaccine can be drawn out of the container with a syringe, or it ma be emptied into a shallow glass dish, such as a saltcellar, which ha been sterilized by boiling.

The syringe and needle should be sterilized by boiling in 2 pe cent soda solution. To insure perfect sterilization, draw the pisto out to its full length, or remove it entirely so that the barrel is fu of water during the boiling. A fresh needle should be used for eac man, or if one needle must be used on two or more men, it should b resterilized, before each injection.

No person should be vaccinated who is not perfectly health and free from fever. The temperature should be taken in doubtfu cases and the urine should be examined; if fever or any other sym toms of illness are present, the procedure should be postpone These precautions are necessary to avoid vaccinating men who ma be in the incubation stage of typhoid or other fever. Neither bee nor alcohol in any other form should be drunk on the day of trea ment. Vaccination is well borne by children and by women, usin doses proportionate to the body weight, taking 150 pounds as th unit. Women should not be given the first dose during or near th time of the menstrual period.

The most suitable time for the administration is about 4 o'cloc in the afternoon, as the greater part of the reaction is then ove before morning. There is usually some headache and malaise, an a local reaction consisting of a red and tender area about the siz of the palm of the hand, and sometimes tenderness in the axillar glands. It is best not to require any duty for 24 hours, nor to pe mit active exercise, such as long rides or walks. Rarely, marke general reactions occur—headache, backache, nausea, vomitin herpes labialis, occasionally albuminuria, and some loss of bod weight. The number of such reactions is exceedingly small, an regardless of their severity they as a rule disappear inside of 4 hours.

The Widal reaction is positive after typhoid vaccination, appea ing in about 10 days after the first dose, and it remains positiv for six months to a year. This fact must be considered in diagnosin typhoid in vaccinated persons. They may give a positive Wida regardless of the nature of the illness, and reaction is frequentl of no assistance in diagnosis.

The vaccines should be stored in an ice box. They will keep fo four months and perhaps longer when stored at low temperature in the dark.

A fresh ampule should be opened for each day's use. Any vaccin remaining unused in an opened ampule at the end of the day shoul be thrown away. The only vaccines used will be those obtaine from the Army Medical School, and will be furnished on reques by information slip or by telegram to the commandant. When fo any reason a larger stock is on hand than appears to be needed

·ections as to disposition will be obtained from the commandant, my Medical School, upon application to him directly, stating date receipt of the vaccine. Stock over four months old will be destroyed ıen a new supply has been received.

CHOLERA.

Cause.—The bacterial cause of cholera is a comma-shaped bacillus own as the comma or cholera bacillus.

Nature.—Two main forms of cholera are distinguished. In one pe of the disease large epidemics break out more or less suddenly. these cases the cholera bacillus is contained in the drinking water. the other form of the disease the cases occur separately and occa- nally; they arise from contact with other cases of cholera, with olera bacillus carriers, or from filth contamination by flies, as in e manner of spread of typhoid fever.

The cholera bacillus breeds in the intestine of man and escapes th the intestinal discharges. Gaining access to water supplies, it rvives there for a time. Upon the hands, clothing, etc., it may be rried to healthy persons by contact. In the cholera patient only e intestinal discharges contain the bacilli.

Prevention.—The control of the drinking water is imperative to oid water-borne epidemics. The cleansing of the hands, disin- tion of clothing, bedding, eating utensils, etc., are necessary to event contact infection. The discovery and isolation of carriers, ıo in infected localities may constitute from 5 to 10 per cent of e population, should be assiduously attended to. Carriers are an pecial menace when they are engaged in the handling and prep- ıtion of food. Should cholera appear, the things to be especially pt in mind are:

(1) Close watch over the persons who have to do with the handling food.

(2) The safeguarding of water and milk. The latter should always boiled before use.

(3) The use only of food recently cooked.

(4) The screening of kitchen and mess halls.

(5) The reduction of flies by trapping and killing, and the de- uction of their breeding places.

DYSENTERY.

Causes and nature.—Dysentery or inflammation of the large testine is caused by two classes of microorganisms, an amœba and rtain bacteria. The former gives rise to amœbic, the latter to cillary dysentery. The bacterial or bacillary form of dysentery more widely distributed over the world than the amœbic. While e former is found in all climates, the latter is chiefly restricted to ırm countries. But persons suffering from amœbic dysentery ay carry the disease from a warm to a cold climate.

Sources of infection.—The amoebae and bacilli which cause dysen- ry are contained in the intestinal contents and are discharged with em. They are, therefore, subject to the same manner of distribu- on as are the typhoid bacilli and the preventive measures to be employed are identical with those employed in typhoid fever. I may be well, however, to emphasize the common occurrence c carriers of dysentery bacilli and amoeba among exposed and recov ered cases, and the necessity of enforcing habits of personal cleanl ness and other related measures to control the disease.

Diarrhea.—In addition to dysentery, slighter and nondysenteri forms of intestinal trouble are more or less common. As the resu of chill and indiscretion in diet, diarrhea, griping, and even blood stools may arise. But any case of persistent diarrhea in whic blood and mucus are being discharged should be regarded as sus picious and submitted to a laboratory examination in order to dete mine whether it may be dysentery. The amoebae are searched fo by direct microscopical examination; the bacilli may be obtained i culture, or an agglutination test made with the patient's blood t determine their presence.

THE INTESTINAL GROUP OF DISEASES.

1. Typhoid and paratyphoid fever, cholera, and amoebic an bacillary dysentery form a group of intestinal infections in whic the causative micro-organisms are discharged with the excreta an gain access to healthy persons through the mouth. The gener principles of their prevention are practically identical. The firs effort made should be to destroy the infectious agents at the sourc namely, in the discharges from the intestine. The next effort shoul be to control the water and food supply and the personal habits c the men, so that any of the micro-organisms which escape destruc tion may not find their way into the digestive tract in a livin condition.

2. No man should be employed as cook or handler of food or wate who is a carrier of B typhosus, B paratyphosus "A" or "B," c cysts of entamoeba histolytica.

3. Stools of all cooks and food handlers (including handlers c water and drivers of water and ice wagons) will be examined fo typhoid, paratyphoid "A" and "B", and dysentery bacilli, and fo cysts of entamoeba histolytica. In case of enlisted men, notatio of positive findings should be made on the service record.

EPIDEMIC MENINGITIS.

Names.—Epidemic meningitis, or cerebrospinal meningitis, c cerebrospinal fever is one disease. In certain epidemics hemorrhag into the skin are common; because of this fact the disease is als called spotted fever.

Cause.—The bacterial cause of epidemic meningitis is a diplo coccus called meningococcus. It is present in the inflamed mem branes of meninges about the brain and spinal cord and within th ventricles of the brain of those ill of the disease. It is also prese upon the mucous membranes of the nose and throat of the ill, an even of the well, who act as healthy carriers of the diplococcus.

Sporadic cases.—Epidemic meningitis has not been absent fro this country as a whole in many years. The severe epidemics hav practically disappeared, but occasional or sporadic cases have neve less continued to arise. From time to time groups of cases or all local epidemics have also appeared.

Carriers.—The healthy carriers of the meningococcus are more merous than the cases of the disease which arise. The persistence the sporadic cases indicates, therefore, the continued existence of h carriers in the general population. The assembling of large oups of men from various parts of the country is certain to introce carriers, and the close association of the carrier with other pers is as certain to lead to the appearance of cases of epidemic ningitis.

Mode of infection.—Infection with the meningococcus takes place way of the mucous membrane of the nose and throat. Even en meningitis does not arise the carriers harbor the diplococcus on those mucous membranes. They are present also in their retions and gain access to others through coughing, sneezing, wking and spitting, and through contact of the hands contamited with the secretions.

Sources of danger.—The ill patient is a source of danger only to attendants, because he is kept isolated in bed. To reduce this nger to a minimum every precaution should be taken to disinfect destroy the discharges from the nose and throat. This is necessary marily in the interest of the attendants—doctors and nurses— l secondarily, in the interests of others, since doctor or nurse y be converted into a carrier.

The chief danger to others is the healthy carrier, because he is t suspected or isolated and moves about freely. He can be deted by means of a bacteriological examination, and having been tected, methods exist for ridding the mucous membranes of the lococcus.

The occurrence of a case of epidemic meningitis in a barrack, tent, mess is the signal for the bacteriological examination of all the n in this group. Until this is done, the men should not be pertted to move about freely. All those not found to be carriers can at once released. The others are released as soon as they become ningococcus free. Likewise the convalescent patient is not resed until a bacteriological examination has shown the mucous mbranes of the nose and throat to be free of the meningococcus.

Varieties of cases.—Two main clinical varieties of epidemic meninis occur. They are called ordinary and fulminating or explosive. the former the symptoms come on and develop gradually, and th or recovery is a matter of one or several weeks. In the latter symptoms appear suddenly and quickly become alarming, and th may result in a few hours and usually does occur within 36 urs. The greatest number of recoveries occur among the ordinary es, but recovery has been observed even among the fulminant es. Recovery from both is now more frequent as the result of use of the antimeningococcic serum.

Prevention.—No certain means of prevention of epidemic meninis is known except the detection and removal of carriers of the ningococcus and the isolation of cases of the disease. The incince of the disease is, however, influenced by hygienic conditions. e greatest number of cases tends to occur in the winter when ople are much indoors and ventilation is deficient. In the spring, mmer, and autumn, when they live less within doors, fewer cases

arise. Hence, the appearance of the disease in camps is an indic
tion for better separation of the inmates. The less they are in int
mate contact, the smaller the danger from coughing, hawking, an
spitting except under conditions in which the secretions can be caugh
as in a handkerchief. Cleanliness of person, especially of the hand
is also a safeguard.

Treatment.—The treatment most relied upon consists in the inje
tion into the membranes of the spinal cord and brain of the ant
meningococcic serum. This is done by means of lumbar punctur
a certain quantity of the cerebrospinal fluid first being remove
This fluid, which normally is perfectly clear, becomes turbid or pur
lent as a result of the infection and contains the meningococcus an
leukocytes and other cells. The diplococci are partly within an
partly without the leukocytes. Removal of the cerebrospinal flu
is of benefit because it withdraws a certain number of meningococ
but it also reduces the pressure within the ventricles of the brai
which is of value. The antimeningococcic serum acts directly upo
the diplococci, destroys them or prevents their multiplicatio
Hence, it is definitely curative.

The serum acts only as long as it is within the meninges or mem
branes of the spinal cord and brain, and as it escapes into the bloo
its injection must be repeated. The rule is to repeat the injectio
every 24 hours for two or three or more days. In severe cases
has been found of advantage to repeat the injection every 12 hour
The detailed methods of employing the serum and of treating carrie
are given in a special circular.

MALARIA.

Cause.—Malaria is caused by a microorganism (plasmodium m
lariae) which gains access to the body through the bites of mosquito
belonging to the genus Anopheles.

The predisposing causes of the disease are those that favor t
development of mosquito life.

On account of the nocturnal habits of the malaria-bearing mosqu
toes, the disease is more likely to be contracted at night.

Prevention.—Camps should not be located near swamps, or
places where standing water favors the development of the mosquit
Every precaution will be taken to destroy breeding places by drai
ing and filling, or by oiling them and by the cutting away of all gra
or undergrowth for a distance of 200 yards about camps and habit
tions in order that the adult mosquitoes may not find lodgment an
protection.

In certain conditions the use of preventive doses of quinine may
required, and administered by order under the supervision of t
medical officer. All cases of malaria will be promptly isolated f
treatment and protected from the attack of mosquitoes.

(See also par. 192–194, Manual for the Medical Department.)

YELLOW FEVER.

Is transmitted by the bite of the yellow fever mosquito (stegomy
calopus).

Yellow fever is essentially a disease of the Tropics and its existen
is dependent upon the distribution of this single species of mosquit

all and silver-striped, active principally at evening time, and eeding generally in small accumulations of water close to the bitations of man.

The prevention of this disease, as of malaria, depends chiefly on e destruction of the mosquito and its breeding places, the proper otection against the bites of the insects at all times, and the early lation, protection, and treatment of each case of yellow fever as on as suspected.

TYPHUS FEVER.

Definition.—Typhus fever is an acute infectious disease, caused a specific germ, characterized by sudden onset, high fever, marked rvous symptoms, and macular eruption. It has prevailed in exico and in eastern Europe since the middle of the sixteenth ntury.

Transmission.—Typhus fever is transmitted to man only by the te of the louse, which infests the clothing and body of the victims.

Prevention.—The prevention of typhus fever depends, therefore, on personal cleanliness and the avoidance and destruction of fected lice.

Frequent bathing and cleansing of clothing, with repeated inspecons of garments, particularly the seams where the eggs of the louse e deposited, are imperative precautions.

The clothes louse lays its eggs among and attached to the fibers of othes with a special preference for seams and linings, a point to be membered in the destruction of lice.

The eggs are the size of a pin-point, yellowish white in color, gobletaped, and attached at the lower end to the cloth by a cement creted by the female. They can be destroyed by boiling water or rosene. In this connection see Bulletin No. 10. War Department, 16.

The avoidance of buildings, places, and persons known to be incted with lice is of first importance.

In case troops are sent into a typhus area, a railway disinfecting d bathing train will be provided and stationary plants of like aracter at the bases.

EPIDEMIC JAUNDICE.

Cause.—Epidemic jaundice is caused by a spirochete which is undant in the urine and feces of convalescents, and is also frequently und in the kidneys of rats. This spirochete lives for some time in ater, and the disease is contracted by standing in contaminated ater, and less frequently by eating contaminated food.

Prevention.—Prevention consists in isolation of all cases until the ine and feces are free from spirochetes, avoidance of urine and cal contamination of trenches, destruction of rats, the protection food, and keeping trenches free from water. If the trenches come contaminated, water should be pumped out and lime inkled freely over the soil.

SMALLPOX.

Any case of smallpox occurring among persons subject to milita control will be isolated, and contacts not protected by recent succe ful vaccination will be revaccinated.

VACCINATION.

Vaccination being recognized as an effective means of preventi smallpox, all recruits upon enlistment and all soldiers upon reenlis ment will be vaccinated. When the first vaccination of a recru is ineffective, it will be repeated at the end of eight days.

All the personnel of a military command, station, or transpo including civilians connected therewith, will be vaccinated when the opinion of the medical officer responsible for sanitation it necessary as a means of protection against smallpox. Civilians r fusing to be vaccinated when so directed by proper authority may excluded from the military reservation or station.

Officers should be vaccinated at least once in a period of sev years. Troops under orders to perform over-sea journeys or fie service will be inspected by the responsible medical officer wi respect to their protection against smallpox, and those who in h opinion require it will be vaccinated.

Technique.—The skin at the selected site must be clean. Washi with warm water, followed by alcohol, is usually sufficient, the alcoh being permitted to evaporate before proceeding. Scrubbing wi soap and water is necessary for a dirty skin, but needless irritation the skin is to be avoided.

The proceedure, described as follows, is preferable to "scarific tion," which will no longer be used:

Incision is the method of choice and should be made with the poi of a sterile needle, producing a "scratch." A sterile scalpel may b used, but is more likely to cause bleeding. The incision or scratc should preferably not draw blood. There should be at least tw incisions, three-quarters of an inch long and 1 inch apart; aft exposure to smallpox four incisions will be made. The virus is th placed upon the abraded surface and gently rubbed in, unnecessar irritation being avoided.

The wound is allowed to dry thoroughly and can be left witho dressing, though several layers of gauze may be applied with adhesi plaster. Any dressing that retains heat and moisture is bad. Shiel will no longer be issued.

Bathing is permitted, but unnecessary use of the limb is to b discouraged when practicable.

MEASLES, MUMPS, AND SCARLET FEVER.

When these diseases appear in a command all cases of illness wi catarrhal symptoms having a temperature of 101 degrees or ov will be promptly isolated, and the general preventive measures use against the contagious respiratory diseases will be instituted. Su ceptible contacts will be isolated and inspected daily.

If practicable, a detention camp will be established where a recently joined recruits will be held under observation before bein permitted to join their organizations.

SANITATION, UNITED STATES.

CAMP SANITATION.

The following sanitary regulations are published for the guidance all concerned:

1. *Responsibility for sanitation.*—Commanders of all grades are responsible for police id sanitation and for the enforcement of the provisions of these regulations within eir organizations.

2. *Division surgeon.*—The division surgeon is charged, under the commanding gen- al, with the general conduct and supervision of the Medical Department of the vision in the performance of its duties and will make recommendation concerning l matters pertaining to the sanitary welfare of the command.

3. *Sanitary inspector.*—The sanitary inspector is assistant to the division surgeon id is charged especially with the supervision of the sanitation of the command to hich he is assigned. It is the duty of organization commanders to remedy defects ported to them with the least possible delay.

4. *Sanitary squads* will be organized by the division surgeon for special sanitary irposes, such as the purification of water supplies, mosquito and fly prevention, dis- osal of wastes, and disinfection. They will consist of officers, noncommissioned offi- rs and privates first class, or privates of the Medical Department, assisted by civilian nitary laborers employed by the Quartermaster Corps, and when necessary by tails of officers and enlisted men from other branches of the service.

5. *Water supply.*—In the field water must not be used for drinking purposes until has been pronounced fit for use by a medical officer. Care must be taken to prevent ntamination of stored water by keeping all containers scrupulously clean and vered in such manner as to prevent "dipping," and the entrance of dust and other urces of infection. The use of a common drinking cup will not be permitted.

An appliance carried on the supply table as "Water bag, field, sterilizing," consists a 40-gallon canvas bag of specially woven flax, 20 inches in diameter and 28 inches length. The purpose of the bag is not to transport water, but to provide a stationary ceptacle in which water can be held long enough to sterilize, and then be distributed. ie empty bag weighs from 7 to 7½ pounds and folds into a convenient package for rriage in the field, for which purpose it was especially designed. After the bag is spended and filled, the water is sterilized by the addition of a small amount of pochlorite of calcium. This is carried in measured doses, sealed in glass tubes. ie process is one of oxidation. In the strength used, waters highly infected are ndered safe. Water ordinarily used will be entirely safe after being so treated. As e chemical acts more efficiently in clear waters, a filter cloth, to be fastened over e opening of the bag and weighing 1 ounce is provided, or water may be strained rough a blanket. Suspended matter, such as clay, is largely removed and not left interfere with the action of the chlorin. The bag is filled after it is put in place.

6. *Kitchens and mess halls.*—Kitchens and mess halls will be securely screened and traps provided for catching flies that gain entrance. An effective flytrap con- ting of a light wooden frame covered with wire gauze, extending to about one-eighth an inch of the floor of the trap, is readily constructed. Sweetened water, slightly idulated with vinegar, is an excellent bait. Fly paper may also be used. All food ceptacles, dishes, and tableware will be protected from flies and dust. Unit com- inders will see that an ample supply of hot water and dish towels are provided for eaning cooking utensils, dishes, and mess kits. Ice boxes will be kept elevated at height sufficient to allow for inspection and cleansing. Drip pans will be emptied d scalded out daily.

7. *Food and drinks.*—No food or like commodities will be sold in camp except in e authorized exchanges.

Bills of fare should be prepared in advance and adhered to as far as is practicable. Attention is called to the use of the following foods, the elimination of which from e messes will serve to prevent a variety of intestinal disorders:

(a) Canned milk and fish opened the day before (milk and fish poisoning).

(b) Hashes of meats and potatoes prepared the night previous (ptomaine posioni of severe type).

(c) In certain localities green vegetables, uncooked (dysenteries and diarrhea).

8. *Baths and lavatories.*—Careful inspection will be made daily to see that wa water is so disposed of as to prevent mosquito breeding and other nuisances.

9. *Disposal of garbage.*—For detachments or companies in camps or in isolated lo tions where other means of disposal are not available, an incinerator will be install of a type approved by the sanitary inspector. The Guthrie incinerator may be use detail drawing for the construction of which may be found in the Manual for t Quartermaster Corps. Where disposal in a sanitary manner can be made by carta the garbage may be carried away in the can and disposed of. The returned can w be thoroughly cleansed. Cans will be kept tightly covered on open stands.

10. *Care of picket lines and disposal of manure.*—Picket lines will be kept broo swept, and all manure and straw hauled away daily and burned or otherwise dispos of as directed by the sanitary inspector. A weekly incineration of the picket li will be accomplished with the use of crude oil. Crude oil may be obtained from t Quartermaster Corps on usual requisition.

11. *Disposal of excreta.*—In permanent camps where a water-carriage system not installed, the Havard or other fly-tight box and pit latrine will be used. Ea day the pit will either be burned out or sprayed with a lampblack or bone-bla mixture. If burned out, 1 gallon of crude oil and 15 pounds of hay or straw shou be used. A satisfactory mixture for spraying consists of half pound of lampbla to a gallon of kerosene, or 1 pound of bone black to 3 gallons of crude oil. Sprayi should be done preferably with a spray pump. Both the interior of the box a of the pit should be kept thoroughly coated with the mixture. Detail drawing the Havard box may be found in the Manual for the Quartermaster Corps. T box must be kept fly tight. This implies closure of all cracks, care of hinges, a back construction, so that the lids drop automatically. The latrine seats will scrubbed with soap and water daily and washed off at least twice weekly with a o one-hundredths solution of creolin or other disinfectant. When filled to within feet of the top, pits will be filled with earth to within 6 inches of the surface a covered with a layer of sacking soaked in crude oil to extend 3 feet beyond the edg of the pit; the latter will then be filled in with earth and the location marked. Urin cans will be placed in the camp streets at nights and removed in the morning, emptie and burned out. Facilities for washing the hands should, if possible, be provid in each latrine.

12. *Personal cleanliness.*—Every member of the command will bathe at least twi weekly. Army Regulations (par. 286) require that the men shall wash their han before each meal and immediately after visiting the latrines. Teeth will be cleans with a brush at least once a day. Underwear should be frequently changed. Be ding and clothing will be sunned and tent walls raised daily, weather permittin Barracks and tents will be adequately ventilated. Tents will be furled or stru frequently so that the sites may be thoroughly sunned.

13. *Venereal diseases.*—The cause of these diseases is a matter of common know edge. They are entirely preventable and the Government punishes those who expo themselves and contract venereal disease by prompt stoppage of pay and restricti of privileges while under treatment.

It is enjoined upon all officers serving with troops to do their utmost to encoura healthful exercises and physical recreation and to supply opportunities for clean social and interesting mental occupations for the men under their command; take advantage of favorable opportunities to point out, particularly to the young men, the inevitable misery and disaster which follow upon intemperance and mor uncleanliness, and that venereal disease, which is almost sure to follow licentio living, is never a trivial affair. Although the chief obligation and responsibili for the instruction of soldiers in these matters rests upon company officers, the medic officers should cooperate by occasional lectures or other instruction upon the su ject of sexual physiology and hygiene and the dangers of venereal infection.

Commanding officers will require that men who expose themselves to the dang of contracting venereal disease shall at once upon their return to camp or garris report to the hospital or dispensary for the application of such cleansing and pr phylactic treatment as may be prescribed by the Surgeon General. Any soldi who fails to comply with such instructions, if found to be suffering from a venere affection shall be brought to trial by court-martial for neglect of duty.

Cases of these diseases will be promptly subjected to treatment, but not necessari excused from duty unless, in the opinion of the surgeon, it is deemed desirabl They will be made of record in the medical reports in any case. A list of those di eased but doing duty will be kept both by the company or detachment command and the surgeon, and the infected men will be required to report to a medical offic systematic treatment until cured. While in the infectious stages the men should confined strictly to the limits of the post. When a venereal case, whether or not sick report, is transferred to another command, the surgeon will send a transfer giving a brief history of the case.

14. *Fitting of shoes and care of feet.*—Company commanders will personally measure feet and fit the shoes of men of their commands and will be held responsible that instructions herein contained are strictly followed.

All measurements prescribed herein will be taken with the soldier standing in re feet and with a 40-pound burden on his back, bearing the entire weight upon foot to be measured. Balance may be preserved by resting the hand on a fixed ject. The measurements of the foot, which must be taken to make suitable eliminary selection of the shoe to try on, (*a*) the length, (*b*) the circumference ound the ball.

To measure the length, the soldier will stand with foot upon the foot measure, nished by the Quartermaster's Corps, fitted in a slot in a board, the heel of the dier fitting snugly against the heel block. The movale block will then be shed up until it touches the end of the great toe. The scale on the top of the oe will be determined, approximately, by adding 2 to the reading of the scale; us, if the soldier's foot scales 6½, a shoe not smaller than 8½ should be tried on first.

To take the ball measure, pass the foot tape, supplied by the Quartermaster's rps, around the foot at the prominent tubercle at the base of the great toe and the ominent tubercle at the base of the little toe.

The tape should lie closely to the flesh, but should not be so tight as to compress it. aving taken the foregoing measurements, the shoe best suited to the foot will be termined by reference to Special Regulations No. 40, War Department. For ample, assume that the circumference of the ball is found to be 9½ inches. In the ble on page 28 of the aforesaid circular, under the heading "Marching shoes," it ll be seen that for a foot requiring an 8½ shoe a ball measurement of 9½ inches corsponds to a D width. The size of shoe to try on for actual fitting is, then, in this se, 8½ D.

If the ball measurement found as above does not correspond exactly with any ball easurement given in the table, then the narrower of the two widths between which e measurement lies should be selected.

Beginning with the size and width thus tentatively selected, shoes will be tried on until atisfactory fit is secured.

Correct fit in width and instep will be determined experimentally. To determine e fact of fit the shoe will be laced snugly and the soldier with a 40-pound burden on his back will again throw his entire weight on one foot. The officer will then ess in the leather of the shoe in front of the toes to determine the existence of fficient vacant space in front of the great toe be less than two-thirds inch, nor should ere be pressure on the top of the toes. The officer will then grasp with his hand e leather of the shoe over the ball. As his fingers and thumb are brought slowly gether over the leather the shoe should feel snugly filled without apparent tension hile the leather should lie smoothly under the hand. If the leather wrinkles under e grasp of the hand the shoe is too wide and a narrower width is needed; if the ather seems tense and bulging and the hand tends to slip over easily, the shoe is narrow and a greater width is necessary.

Usually it will be necessary to try on several pairs of shoes in this manner before entirely satisfactory shoe is secured. A record of the proper size and width of oes as determined above will be kept as provided in Circular 17, Quartermaster eneral's Office, May 1, 1916.

Measurements will be taken and shoes will be fitted as prescribed at least once in ch enlistment and the record will be changed from time to time if subsequent tings render a change necessary.

Sizes called for in requisitions will conform to the record and the fact of fit of oes issued on such requisitions will be personally verified in every instance by mpany commanders in the manner above prescribed.

No shoes will be issued to, or worn by, enlisted men while on duty which are not ted in accordance with this order.

New shoes should be adapted to the contours of the feet as soon as possible. Shoe etchers with adjustable knobs to take pressure off painful corns and bunions are sued by the Quartermaster Corps.

All shoes should be properly broken in before beginning a march. The following required:

The soldier stands in his new shoes in about 2½ inches of water for about five minutes ntil the leather is thoroughly pliable and moist; he should then walk over for about an our on a level surface, letting the shoes dry on his feet, to the irregularities of which the leather is thus molded in the same way as it was previously molded over the s last. On taking the shoes off a very little neat's-foot oil should be rubbed into leather to prevent its hardening and cracking. If it is desired to waterproof the sh at any time a considerable amount of neat's-foot oil should be rubbed into the leatl

Light woolen or heavy woolen socks will habitually be worn for marching; the so will be large enough to permit free movement of the toes, but not so loose as to per of wrinkling. Darned socks, or socks with holes, will not be worn in marching

Company commanders, by frequent inspections throughout the year, will maint the feet of their men in condition for proper marching. They will cause the pr trimming of nails, removal or paring of corns and callouses, relief of painful buni treatment of ingrowing nails, and other defects, sending serious cases to the surge

Before a march is undertaken by foot troops, company commanders will person inspect the bare feet of their men. While on the march they will personally see e day that their men wash their feet as soon as possible after reaching camp, p and evacuate blisters and cover such blisters or excoriations with zinc oxide pla supplied by the Medical Department, applied hot, dust the feet with the foot pow supplied by the Medical Department, and put on clean socks. An undue amo of foot injury and disability from shoes will be regarded as evidence of inefficie on the part of the officers concerned and as cause for investigation.

Quartermasters will provide a place where shoes may be fitted for the purpos determining or verifying the record to be kept in each company, troop, battery, detachment of the proper sizes of shoes required for each enlisted man thereof. the purpose of fitting they will keep on hand at all times a complete series of e size and width of shoes furnished for issue. Company commanders will report writing to the next higher commander every instance of failure to secure proper sh for their commands or to obtain proper facilities for fitting the shoes as herein direct Commanders will investigate the reasons for and be held responsible as far as lies their power for the rectification of such deficiencies.

A brief record of the number of such reports from company commanders and reason for such deficiencies will be furnished to inspectors at each inspection.

Inspections conducted under the provisions of paragraph 889, Army Regulatio will embrace an inquiry into the manner in which this order has been complied wi and the report of inspections will include a statement of all instances of failure on part of company commanders to secure proper shoes for their commands and the ca of such failure.

15. *Physical inspections of troops.*—Commanding officers will require a medi officer, accompanied by the company or detachment commander, to make a thoro physical inspection twice in each month of all the enlisted men of each organizat belonging to or attached to the command. These inspections will be made at tin not known beforehand to the men and preferably immediately after a formati The dates on which the physical inspections of the various organizations are made v be noted on the monthly sanitary reports.

At these inspections an examination of the feet and footwear and of the condition personal cleanliness of the men will be made, as well as careful observation for t detection of venereal diseases.

16. *Sanitary inspections of organizations.*—Surgeons of organizations will mak daily inspection of the commands to which they pertain, giving particular attention the following: Picket lines, latrines, kitchens, and mess halls, including cleanlin of cooks, utensils and fixtures, barracks and tents, inclosed toilets, baths, lavator laundries, exchanges, garbage receptacles, incinerators, and all food supplies. Th will make a verbal report at once to their respective commanding officers for t correction of any sanitary defects noted, and a similar report, with the action taken, the sanitary inspector on his next visit.

17. *Mosquito breeding.*—Areas about camps in which mosquitoes might breed, su as cisterns, tanks, woods, gutters, pools, and drains, will be kept under close obser tion by the responsible medical officers and the proper remedies applied, i. e., scre ing, draining, oiling, etc. The use of the mosquito bar is imperative in all distri where mosquitoes are prevalent, except where tents or barracks are effectua screened with wire.

18. *Flies.*—All possible breeding places of flies should be destroyed, particu attention being given to manure and refuse from picket lines and stables.

An energetic campaign must be begun at once against the mature flies.

REPORTS OF DEPARTMENT SURGEONS.

The department surgeon, Eastern Department, reports as follow

The average strength of command as reported by surgeons, was 23,013. The numb of admissions to sick report, including those taken up for record only, was 18,410, a

2 were made from the previous year; no deduction was made for readmissions. The lmission rate per thousand of strength for 1915 was 757.22. the admission rate for this ear being 799.98. The admission rate for the entire Army in the year 1915 was 726.19, admissions deducted.

The constantly noneffective rate for all causes, per thousand of strength, was 22.09. he rate for 1915 was 19.35, for 1914, 17.69, and for 1913, 16.52. These increases are counted for partly by the increase in the garrison at Panama, where a higher conantly noneffective rate is expected, and by the withdrawal of troops from posts in is department, leaving their sick to be cared for, thus charging this department with e days lost by such patients without the compensation of the organization strength be used in statistical tables.

The average number of days each case was treated was 9.79, an increase over that of st year, which was 8.86; and for each case of venereal disease an increase from 12.53 1915 to 14.08 in 1916. This increase is due at least in part to the fact that surgeons posts are required to keep active cases of venereal disease in hospital wherever racticable. The percentage of venereal admissions to all cases was 13.75, as contrasted ith 12.22 for 1915.

With reference to venereal diseases, the rate of constantly noneffective of the epartment for the year was 4.16 against 3.39 for 1915. The admission rate for venereal iseases per thousand of strength was 109, as against 97 in 1915 and 99 in 1914. No eduction is made on readmissions.

The eight prevailing diseases in order of precedence after venereal are as follows:

Disease.	Days lost.	Constantly noneffective per thousand of strength.
Digestive	19,258	2.28
Cutaneous	12,897	1.53
Respiratory	11,320	1.34
Circulatory	7,979	.95
Malaria	7,379	.88
Influenza	7,342	.87
Tonsilitis	5,912	.70
Rheumatism	5,732	.68

EPIDEMIC DISEASES.

Mumps.—There were only 51 cases of mumps, losing 869 days, as compared with 5 cases in 1915, which lost 29,506 days. These cases occurred at 15 posts, the largest umber, 20, having occurred at Fort H. G. Wright.

Measles.—There were 110 cases of measles at 29 posts, losing 1,925 days, as compared ith 45 cases in 1915, losing 832 days. The largest number was 15 cases at Fort Adams.

Typhoid fever.—There were 2 cases of typhoid fever during the year, 1 at Fort ade and 1 at Fort Oglethorpe.

Tuberculosis.—A decrease is noted from last year, as shown by the following table:

1914	41 cases lost 1,152 days.
1915	77 cases lost 1,568 days.
1916	65 cases lost 1,334 days.

The largest number of cases, 8, occurred at San Juan; Fort Myer and camp at Empire ch had 5 cases.

Alcoholism.—The following table shows the number of days lost, admissions, and ys lost per thousand of strength on account of alcoholism:

Year.	Days lost.	Number of admissions.	Admission rate per thousand.
3	1,651	388	17.02
4	1,283	362	16.12
5	1,992	446	16.80
6	1,607	375	15.28

Leprosy.—One case of leprosy in the person of a hospital matron occurred duri the year at Key West Barracks. The source of infection is not known.

During the year, 196 soldiers belonging to this department were discharged surgeon's certificate of disability. Of these, 83 were for causes incurred in line of du 113 were for causes not in line of duty. Of the latter, 73 were for disability existi prior to enlistment. The rate per thousand of strength is 8.52 as contrasted with 6. for 1915 and 10.42 for 1914. The rates of discharge in the Army at large in 1915 a 1914 were 13.60 and 14.82, respectively.

Discharges on surgeon's certificate of disability, calendar year 1916.

Disease or condition:	Cas
Tuberculosis, pulmonary	
Flat foot	
Syphilis	
Dementia, precox	
Dementia, hebephrenic	
Fractures	
Gonorrhea	
Epilepsy	
Heart disease	
Arthritis	
Varicose veins	
Hyperthyroidism	
Hernia, inguinal	
Deflected nasal septum	
Neurasthenia	
Hydrocele	
Atrophy of muscles	
Asthma, bronchial	
Synovitis, knee	
Psychosis	
Dislocation of shoulder	
Otitis, media	
Nephritis, chronic	
Miscellaneous	
Total	1

Sixty-one deaths were reported during the year. This was a rate of 2.65 per tho sand, as compared with 3.09 per thousand for 1915. Two were commissioned office Fifty-two were in line of duty, 8 were not in line of duty, and 1 undetermined.

Deaths.

From diseases:	
Pneumonia	
Nephritis	
Heart diseases	
Appendicitis, acute	
Cerebrospinal meningitis	
Gastric ulcer	
Abscess of liver	
Gastroduodenitis, acute	
Adhesions, transverse colon	
Hernia, strangulated, mesenteric	
Peritonitis, general, following hernia operation	
Typhoid fever	
Diabetes, mellitus	
Carcinoma of pancreas and stomach	
Septicemia following carbuncle, lips, cheeks, and nose	
Carbunculosis	
Leukemia	
Paralysis, bulbar	
Broncho-pneumonia	
Abscess, lung	
Congestion of lungs	
Total from disease	

om accidents:

Drowning, accidental	14
Fractured skull	5
Gunshot wounds	2
Poisoning by wood alcohol	2
Strangulation, accidental	1
Run over by cars	1
Total	25

(Of the above external causes, 2 were homicidal.)

icidal:

Hanging	2
Gunshot wounds	2
Total	4
Total from external causes	29

The unsatisfactory condition in the matter of hospital treatment in the Canal Zone those in the military service, and more particularly for the dependent members the families of persons in the military service, has been brought to the attention higher authority in previous reports. No change in the condition has occurred ring the year. A hospital or hospitals in the Zone for the treatment of the sick of military service, to be controlled, managed, and served by members of the Medical partment only, and the withdrawal of medical officers from the civil or Canal hosals, would seem to be the only satisfactory solution of the present difficult situation.

Hospital fund.—As shown by the monthly statements, the hospital fund has been ll administered, and the various messes efficiently and economically managed.

When the school for bakers and cooks is reestablished at Washington Barracks it is intention of this office to encourage the assignment of prospective cooks and mess geants from the larger posts for assignment to that school for the course of instruction. One acting cook was sent to the school from Fort Monroe in the early part of the ar. Subsequent records show that he was sent to Plattsburg with a section of the ool, and finally was discovered acting as kitchen police in one of the engineer comnies. It is presumed that in more settled times a repetition of this incident will t occur.

Sanitary inspections.—No sanitary inspections were made during the year. The erdiction of the War Department of July 8, 1915, has not been lifted and no special nditions have arisen that required investigation.

Medical officers in different parts of the country have been designated to assist the spector general's department in the inspection of sanitary units and sanitary detachents of organizations of the National Guard at the winter armory inspections. The ports of their work do not reach this office.

Dentists.—There are serving at present in the continental limits of this department e dental surgeons, with an estimated strength of about 15,000 men. There should at least 15, and an additional dentist sent for every regiment which may be returned station from the border.

There are three serving in Panama, and one is under orders from Columbus Barracks San Juan for a limited period.

The situation will be much relieved if all of the dentists sent from this department temporary duty to the Texas border can be returned to their proper stations.

There are allotted to this department 157 medical officers and 21 dentists, as follows:

lonels	1
eutenant colonels	10
ajors	38
ptains	44
rst lieutenants, Medical Corps	3
rst lieutenants, Medical Reserve Corps	60
ntract surgeon	1
Total medical officers	157
First lieutenants, Dental Corps	21

Of these, 76 medical officers are serving on the border on temporary duty with the uthern Department, and 10 of the 21 dentists are likewise on temporary duty with e Southern Department on the border.

The following is the standing of the enlisted personnel of the Medical Departmen this date:

Sergeants, first class	
Sergeants	
Corporals	
Total	1

Allowance, 123; excess, 3.

Privates, first class (including cooks)	2
Privates	3
Total	5

Allowance, 553; deficit, 24.
The number of cooks is 37.

The personnel at Fort Crockett is not included in this table, the post only havi been retransferred to this department on December 14, 1916.

The services of the officers of the Medical Reserve Corps and of the Dental Cor have been entirely satisfactory, no complaints or disciplinary measures taken havi been reported to these headquarters.

Detachments, Medical Department.—The establishment of ratings for increased p for surgical assistants, dispensary assistants, and nurses will, it is believed, result much satisfaction to those members of the Medical Department who have merit such ratings and will insure the Government better performance of those duties.

The machinery for conferring these ratings upon the men is believed to be cu bersome, and in the opinion of the undersigned a better plan would be for the depar ment surgeon, or the Surgeon General in the case of those posts which are independen to definitely determine how many of each grade shall be allowed to the various ho pitals, and then allow the surgeon of each hospital to rate or disrate, according to t merits of the case. The provision that the men are not to receive the pay excepti when actually performing the duties, is a very good one and should be continue Instruction of the men of these detachments has been followed as per the schem outlined in the Manual for the Medical Department.

This department was stripped to the lowest possible minimum of all instructed me when the mobilization of Regular troops to points on the border began in the early pa of the year. Recruits were sent to certain posts from recruit depots for intensi training, and in view of the urgency of the situation directions were given that the men receive at least six hours of drill and instruction per day. This method, conjunction with the excellent character of the recruits then being enlisted resulte in fairly well-equipped sanitary soldiers being available for transfer to the border a very short time.

The establishment of the higher grades of noncommissioned officers (master hospit sergeant and hospital sergeant) will doubtless result in making the noncommissione officers more satisfied with this branch of the service, and stimulate them to equi themselves for the higher duties. It is believed, however, that the change of the status by subjecting them to reductions by court-martial, and particularly by changin ranks so that the first sergeants of companies are senior to the sergeants first class of t Medical Department, is a mistake. It is believed that any person who has serve with troops will concede that a sergeant first class is of necessity of a higher grad than is needed for first sergeant, with the single exception, perhaps, of the contr and discipline of men, and even in this few of our older noncommissioned officers a lacking.

Extracts from Reports of Surgeons of Posts.

FORT CONSTITUTION.

The surgeon's quarters is the only building on the reservation receiving its wat supply from a ground well. Though situated on rock foundation, the latrines used b the militia organizations during their summer encampment and the location of stabl within about 100 feet of this building, make the water supplied by this well unsa for drinking purposes. The post hospital consists of a one-story frame buildin heated by coal stoves throughout. The dust and coal gas arising from the operatio of these stoves tend to make sanitary conditions at the hospital not altogether sati factory. There is only one washbowl and one bathtub available for use by men o duty and patients. The lighting facilities are also in need of improvement.

PLATTSBURG BARRACKS.

he toilet room adjoining the mess hall and bathroom in the general mess hall ıld be entirely remodeled and new fixtures installed. Screened doors should be alled between this room and the kitchen. These were recommended in 1914, but hange has yet been made. The shower bath can not be used. The room is deemed ınitary because the floor is in a very dilapidated condition, allowing fluids to leak ugh the basement.

FORT JAY, N. Y.

new hospital building is needed. This has been reported for many years. The ent one is poorly designed; creates an unfavorable impression upon visiting essional men; is not sanitary; has no waiting room or receiving room (officers, es, children, enlisted men, civilians, and prisoners assemble in the hallway iting their turn); no wardmasters' rooms, no isolation ward, no insane ward, no sroom, no special room for the removal of serious or dying cases, no toilets except vards, and no suitable examination room. The plumbing is practically worn out there is no hot water in the main building. The hospital at present is being used n evacuation hospital for the military in Panama, as well as for general prisoners, itia, and casuals from New York City, as well as cases sent from other posts in this artment for observation and treatment.

FORT WASHINGTON, MD.

his post formerly had the unenviable distinction of having the highest rate in the ıy for malarial disease. During the year 1916 the few cases of malaria under tment there did not originate at that post. The vegetation has been kept down, ns cleaned to prevent breeding and harboring of mosquitos, swampy places have n drained or oiled by post labor, and a number of goats maintained to keep down vegetation.

FORT WARREN, MASS.

he prevailing diseases, influenza and tonsillitis, are believed by the surgeon to be in a considerable measure to the poor ventilation and uneven heating of the emate quarters and of the old temporary barracks used as quarters by a part of the ımand. The only remedy is reconstructing the entire post. The sanitary defects cerning the stables remain unchanged. Construction of concrete floors is deemed essary.

FORT HOWARD, MD.

he following interesting quotations are made from the report of the surgeon at t Howard, with relation to gonorrhea, concrete barracks, and the presence of s and mosquitos:

Gonorrhoea—while not in as great a percentage as would probably be found ng the same number of unmarried young men in civil life—is not an infrequent ıplaint. The prophylactic treatments are required and records of such cases are t and 'K' packets are obtainable at post exchange and hospital for the asking; ertheless this procedure does not seem sufficient. In my opinion, the men are not ressed with the necessity of treatment immediately after exposure; i. e., a man may exposed several times within a few days and take but one treatment; then, if he elops gonorrhea within a week or 10 days after the recorded prophylactic treatıt, I have no proof that he did not conform to regulations if he does not choose to ıit it. I have tried to impress upon the men the advisability of the use of the ventative tubes and a lecture has recently been given to the enlisted personnel on subject.

All buildings with one exception are light and well ventilated. Plumbing and inage in good condition. The exception is a concrete barracks building that is ng a great deal of trouble. The men complain of colds and discomfort. The lding is always damp and on frequent occasions the walls 'sweat' moisture, with dles of water on the floor. I reported these conditions to the commanding officer, called a board of officers for investigation. This board made an exhaustive study his building and its findings and recommendations were forwarded to higher horities and a requisition for material to install wooden floors in these barracks likewise submitted.

The post is almost entirely surrounded by extensive tidewater marshes and the squitoes and flies present a very difficult problem. From May until October oil listributed every week. All drains, sewers, and hollows where water can collect

were also treated with oil. The marshes on the reservation are all ditched and
is distributed here also. This seemed to reduce the number of mosquitoes this su
mer, although it is an impossibility to eradicate them unless one had authority o
the marshes outside the post with unlimited money to spend. There were onl
few cases of malaria this year and practically all cases were old infections transplan
from some other place. The flies were present in great numbers, more especia
during the months of September and October. The garbage-disposal cans were m
carefully inspected and regulations rigidly enforced on the reservation, but the res
was far from satisfactory. This condition was due to a great extent to the insanit
condition of the settlement immediately outside of the reservation, which condit
is deplorable. Another cause is the fertilizer used on the truck farms in the immedi
vicinity. The settlement consists of about 50 houses, the owner of which owns m
of the land adjoining the reservation. He uses as a fertilizer the residue from
sewerage tanks of the Baltimore sewer disposal plant, and probably untreated hun
excreta, although there is no proof of this fact. This seems to attract and breed f
in great numbers. The settlement is drained by open ditches, only a few of wh
are cemented. Most of them are merely trenches without proper fall and unke
The grass and weeds are allowed to grow in them. The toilet facilities are woo
shacks all built on the edges of these ditches and each containing galvanized ca
Some attempt has been made to screen these cans from the flies in the past, but t
attempt was evidently inadequate in the beginning and long since has fallen i
decay. The cans are emptied at infrequent intervals and in many cases run ov
their contents running into the draining ditches. They are at all times exposed
flies. The main outflow ditch goes across the road immediately outside of the g
of the reservation and empties on the edge of the marsh that abuts on a deep arm
a creek which washes the shores of the reservation. There is a continuous 'scu
on this water around the shore line and in hot weather the odor is extremely unpleasa
although the condition has considerably improved over past years, according to repo
No way has been found to force the owner to remedy these conditions. Complai
to the State board of health brought back the answer that unless it could be pro
that these conditions actually caused a definite case of disease that they were pow
less to do anything. Most of the inhabitants of this settlement are enlisted men w
of course, could be ordered to live within the reservation. This would not discon
the owner, however, because the workmen of the Sparrows Point Steel Mills wo
promptly occupy the vacated houses. No recommendation is made with a view
remedying these conditions unless it be possible for the Government to buy the la
in question."

FORT DUPONT.

The surgeon reports venereal diseases rather in excess of the ordinary, owing to
fact that the men are exposed while on pass in Wilmington, and the time that elap
between exposure and prophylaxis is too long. The use of prophylactic tubes
such cases to be followed by the regular hospital treatment is recommended.
reference to the water supply, the surgeon states the presence of an excess of fe
salts in the water rapidly deteriorates the plumbing and necessitates an excess
expenditure for repairs. There is no other source available. Distilled water is u
for drinking and cooking.

FORT ETHAN ALLEN.

The surgeon, Fort Ethan Allen, reports the distance from the post to Burling
(the main source of infection from venereal disease) is probably the cause of
failure of the prophylactic in a few cases. He states his belief "that some kind
moving pictures could be used to advantage in the campaign against venereal disea
This has probably been suggested before, but it certainly is not impracticable to
one of the proper class. Some short story could be used as the framework for the m
facts, and a regular 'movie' company could put it on. It should include living p
tures of the insane, the blind, paralyzed, etc., due to these diseases, blocking out
facial expression in each case so as to avoid actual identification. When such films
completed, medical officers should be trained to give special explanatory rema
during the 'show,' using the chaplain's machine for that purpose." He also sugg
that recommendations be made that the next appropriation act provide for at le
$5 per month extra pay for chauffeurs of motor ambulances.

FORT ST. PHILIP, LA.

The surgeon reports that the hospital is absolutely unfit for laparotomy cases,
operating room being in a dirty condition, not from dirt that could be cleaned up
from dust in the cracks and crevices in the floor, etc., due to the age of the buildi

ch can not but be disturbed every time the floor is stepped upon. This condition ıld be extremely dangerous to a patient undergoing a bad abdominal operation ıuch a place.

FORT SHERMAN, CANAL ZONE.

'he surgeon reports in part as follows:

This post has always had numerous cases of malaria. This is because the post lf and surrounding areas are surrounded by jungle. The fact that the notoriously arial Chagres district is near by and that a detachment of this command has been ioned in the heart of this district added to the malarial rate. During the past r all swamps in and near the post have been drained and kept drained by over miles of ditches. The jungle is being cleared back as fast as possible.

There have been and still are many mosquitoes in the post at certain times when winds are from the south and southwest. These winds are especially prevalent ing the wet season, which lasts about eight months. The number of these mosqui-s, especially of the anopheles variety, is steadily growing less as we are able to rease the distance of the jungle from the post.

In view of all these facts it was recommended in the sanitary report for May, 1916, t enough jungle be cleared off so that it would be distant a minimum of a mile from quarters then occupied and about three-fourths of a mile from the new quarters templated (now under construction). This recommendation was repeated in the e report and was disapproved by a board for the time being.

It was later recommended, in a special sanitary report, that at least 350 acres of gle be cleared to give a minimum safety of one-half mile. To do this with the pres-help available would take the entire sanitary gang one year to accomplish if y were able to work exclusively at clearing jungle. With their other work to do vould take them two or three years, during which time the officers and enlisted n and their families would be exposed to bites from anopheles mosquitoes.

There were present in the post about 60 persons who are known to have had aria. These persons are kept continuously on quinine. Despite this we have ırrence among these cases. Also, mosquitoes get into the sleeping quarters despite fact that they are kept carefully screened. They enter through the doors when ned. Therefore if anopheles mosquitoes are present on the post with carriers, re will be more or less malaria. When the jungle area is pushed back far enough re will be practically no anopheles mosquitoes present in the post. The malarial has been constantly decreasing for the last six months in this post. Most of the es occurring are recurrences."

FORT RANDOLPH.

'he prevailing disease is malaria. Sanitary measures, including ditching and ining, have been carefully carried out, together with the prophylactic adminis-ion of quinine up to September 20, 1916. During the last five months no case of aria has originated at the post. Sand flies have been very numerous, especially ing May, when they became a source of extreme discomfort and a menace to lth. Since clearing and ditching part of the mainland and cutting grass and hes on the island the number of sand flies has been considerably reduced.

ixcept as above reported, the sanitary condition of all posts may be reported as d. At certain of the stations on the South Atlantic coast the only available supply drinking water is that obtained in cisterns, and no milk is purchasable excepting densed or evaporated milk. These conditions have been reported from year to r and, while not ideal, appear to be the cause of no particular departure from normal health of the command.

'he casemate barracks at Warren and Wadsworth have likewise frequently been orted upon, and, while they may be called dark, damp, and dismal, there has been outbreak of respiratory or rheumatic troubles at those posts out of proportion to those tations where troops are more comfortably quartered. The question of heating quarters of sergeants, first class, is still an annoying one for the noncommissioned cers stationed on the northern Atlantic coast and on the Great Lakes. In order nake the rooms habitable it is practically necessary to maintain a stove in each m. This is, of course, beyond the allowance of heating stoves and would be im-cticable with the present allowance of coal. If the quarters can not take advantage the hot-water or steam-heating plant already established in hospitals, then at st a satisfactory furnace which can economically heat the entire quarters should furnished.

Medical supplies have, as a rule, been abundant and good. The war in Europe caused a fabulous increase in the price of some commodities that were thought to indispensable, notably the potassium salts and the synthetic products from the Gern laboratories. The service is adjusting itself to the use of substitutes or other cla of remedies. The medical depots, while hard pushed during the mobilization, h with few exceptions filled requisitions with great promptitude.

THE MOBILIZATION OF THE NATIONAL GUARD.

The mobilization and muster into the Federal service of the National Guard Organized Militia were attended with much confusion, due to a number of cau Mobilization camps had been designated for each State prior to the issue of President's call. After the call in several States these sites were changed to ot points. In some instances organizations, instead of being sent to the State cam were rendezvoused at their armories or other points than those designated wh there were no facilities for caring for the sick. These changes had not been fores and consequently organizations did not receive supplies promptly. Blank fo necessary to the muster in were at first not available, and mustering officers w authorized to have them printed. In other instances blank forms sent from th headquarters to the mobilization camps were found on investigation to have remai in the post office.

Many of the Medical Department's units reached camp without supplies or w imperfect equipment and meager supplies. Their officers were ignorant of the met of procuring these and, pending the arrival of camp hospital equipment, purcha supplies in the open market. In some camps medicines were apparently most l ishly expended, timely requisitions to replenish them were not made, and supp were purchased in open market. In all such cases this office instructed the offi at fault in the proper method of procuring supplies and directed that in future tim requisitions be made for necessary supplies.

Camp hospitals had been sent by express by the Surgeon General of the Army each mobilization camp. In those instances where designated camp sites had b changed considerable delay in their delivery ensued in consequence. At a num of camps commanding officers of field hospital companies converted their field l pitals into camp hospitals for the care of the sick, thus immobilizing these un instead of using the camp hospitals for this purpose. It became necessary to is instructions from this office that these units were not to be immobilized, but w to be used for the purpose of instruction and training of their personnel, and that equipment of the camp hospitals which had been sent were to be used for the of the sick. Except at one or two camps these instructions were complied with.

Many of the medical officers of the National Guard, accustomed to the convenier and refinements of civil hospitals, failed to appreciate that the camp hospital eq ment was adapted to the treatment of practically all cases that might arise. T sent many cases to civil hospitals which should have been treated at the camp hospi On the other hand, the enlisted personnel of the Medical Department was inadeq and untrained, conditions which justified the transfer of serious cases to civil hospit Requests for the assignment of noncommissioned officers and men of the Med Department of the Regular Establishment could not be granted, none being availa Severe storms which blew down or rendered the tentage unserviceable, made trans of patients to civil hospitals necessary. The experience in camp hospital admi tration that might have been otherwise gained was thus lost to both the officers enlisted men.

In order to assist the examining surgeons in their various duties, and with the v of instructing the Medical Department personnel of the National Guard in th duties, one noncommissioned officer and two privates first class, or privates of regular Medical Department, were sent to each mobilization camp. It was assu that the National Guard organizations contained many men with clerical trai who after instruction would be able to take up this work. This assumption was realized, and these labors fell almost entirely upon the men so detailed. In s instances they were assigned by commanding officers to the camp hospitals as c and nurses. Requests were made for the assignment of noncommissioned officer instructors and privates as cooks, nurses, and clerks, but owing to the depleted dition of the Medical Department personnel in this department these requests c not be complied with. In each instance, the officer making the request was dire to instruct the National Guard personnel in such duties. It is believed no ser inconveniences resulted and the compulsory training of the medical departm detachments of the National Guard was of benefit to all concerned.

On June 22, 1916, a list of officers of the Medical Corps and Medical Reserve C available for assignment as examining surgeons at mobilization camps and post department was furnished the department commander by the War Department, the commanding general was authorized to assign the reserve officers to active y where required and to posts where necessary. Assignments were accordingly le from these headquarters. Some delay in the case of Medical Reserve Corps cers was occasioned by the fact that some were National Guard officers, others lined active service, and some could not be reached, but the majority promptly ponded. One officer of the Medical Corps, United States Army, was assigned each mobilization camp for duty as medical examiner and in charge of physical minations in mustering in militia into the service of the United States. Medical serve Corps officers were ordered to active duty and assigned to the camps as assist-s to the examining surgeons.

n two of the States in this department enlistments had not been made in accord-e with Bulletin No. 10, Surgeon General's Office, December, 1915, the United tes Army standard. In these, physical examinations were required to be made or to muster in. In the other States, troops were mustered in as soon as they had n accepted and were examined immediately after muster, and all who were found sically disqualified were discharged. The large number of discharges for disa-ty subsequent to muster in, varying from 25 to 50 per cent demonstrated that sical examinations of the National Guard had been very carelessly made, and that ional Guard officers with few exceptions had no conception of the physical quali-tions required. The commanding general was importuned in letters and telegrams aive physical defects in individual cases. This resulted in authorizing the regular lical officer at each camp to waive only such physical defects as would not interfere any way with the performance of all military duty. All physical examinations e made under the supervision of the regular medical officer. Instructions issued e to the effect that medical officers of the National Guard were to be the first mined, and after having been sworn and mustered in, were detailed to assist the lar medical officer. War Department instructions directed that physical exam-ions be hastened with the view of sending the troops to the border as soon as sible. In issuing these instructions, medical officers were directed to make these minations without regard to hours, and the work was then prosecuted day and t, in many instance for 16 hours or more each day, until completed. One er reported that he had not removed his clothing or shoes for 72 hours, and stopped y because he had reached a state of complete exhaustion. Under such circum-ces it was not surprising that many men who were physically disqualified for ice were passed. It was contemplated that the regular officer on duty at the ps should also act as the camp surgeon, a consideration, however, that was impracti-le, as upon him devolved the onerous task of deciding the question of the accept-e or rejection of every individual. Shortly after the troops arrived at the mobili-on camps, the War Department directed the commanding general to assign a medical er of no lower grade than that of major to each camp as sanitary inspector. There e absolutely no medical officers in the continental limits of the department for duty. In order to comply with these directions it became necessary to assign regular medical officer at each camp to this duty in addition to his other duties. ile it was appreciated in this office that it was imposing an impossible task upon , it was expected that he would at least be able to supervise this important duty ugh unable personally to make the inspections. The problem was solved in t camps by detailing a National Guard officer to make the actual inspections, reported defects to the regular officer.

n unfortunate situation developed in one of the States by reason of the fact that a nber of organizations were accepted and mustered in at their home armories instead t the mobilization camp, with the result that the examining surgeon assigned to mobilization camp was ordered to examine the organizations at various cities did not reach the camp until some time after its establishment. Unofficial orts of decidedly insanitary conditions in this camp led to the detail of a special itary inspector to investigate and report upon the conditions existing at this camp. succeeded in establishing order out of the chaos prevailing there, and in a short e thereafter the sanitary conditions were reported as satisfactory.

he muster in and dispatch of troops to the border were seriously embarrassed by relief of several of the senior medical officers before the completion of their duties everal of the camps. As there were no officers available to replace them, and as Department orders contemplated the presence of an officer of the Regular Estab-ment to supervise the work, and particularly to act as sanitary inspector, the lical work of the camp was delayed until officers at other camps had completed r work there and could be sent to replace them. In fact, in one State this duty essarily devolved upon an officer of the Medical Reserve Corps, although the

War Department had requested the assignment of medical officers of at least the of major.

The conscientious manner in which the duties connected with the muste were performed under most trying conditions and often with inadequate assista reflect great credit upon the medical officers and the Medical Reserve Corps offi engaged in them.

Considerable confusion was also occasioned by the issue of the new Manual the Medical Department after these officers reached the mobilization camps. S medical officers failed to receive their copies of this new manual. The designa of "camp surgeon" as used by the Surgeon General apparently was not spe enough to designate the regular medical officer for this duty at these camps, a many instances the commanding officer of the camp designated the senior mec officer of the National Guard as such.

Not being familiar with the designation "camp hospital," officers failed to ap ciate the purpose for which it was sent, with the result, in one instance, that its c ponents were distributed to the Medical Department organizations of the Nati Guard at the camp, and a field hospital, brought into the Federal service, wl probably was incomplete, was used as a camp hospital instead.

Some confusion and delay was also caused by instructions that finger print made, then that they be not made, and then again that they be made.

The blank forms used by the National Guard differ from each other in the var States, and all differ from those used in the regular service. Mustering officers, if any of whom had had previous experience in this duty, were unfamiliar with State blank forms and were in a quandary as to the form required for the muster the Federal service. Many of them failed to receive copies of the Mustering R lations. It would seem advantageous to require the National Guard to use ir administration the same forms as are used in the Army.

Owing to the large number of discharges for disability and other causes, recrui became necessary in order to bring organizations up to the required strength. ' service was performed by National Guard officers who had been mustered in for purpose. The unsatisfactory character of the recruits accepted was evidenced the fact that many were sent to hospitals for treatment almost immediately a acceptance. Recruit depot posts had been designated to which these recruits sent. In spite of this fact many cases were sent to civil hospitals for treatmer procedure that made large inroads upon the Medical Department appropriatior

Medical and hospital supplies were promptly issued from the depots, and in r instances were shipped by express. But one complaint was made to departn inspectors concerning inability to secure supplies. This complaint, upon inves tion in this office, was found to be based upon the fact that at this camp every mec officer in charge of a medical department detachment or unit felt free to make re sitions for medical supplies which obviously were disapproved in this office, instructions issued that requisitions should only be forwarded by the officer who been designated as camp surgeon.

In some of the States organizations brought no ambulances to the camps, w necessitated the hiring of conveyances to transport the sick and disabled cases w could not properly be cared for at the camp hospital from the camps to civil hospi

Vaccination against smallpox and typhoid fever was instituted as soon as the tr reached camp, vaccine having been promptly supplied on telegraphic request this office in all cases. Troops which were sent to the border prior to completic vaccinations were supplied with vaccine and instructions issued that vaccinatio completed en route or upon arrival, as might be indicated.

One case of smallpox occurred in one of the camps on one of our military rese tions. The senior medical officer of the Army on duty there very properly attem to vaccinate the entire personnel of the post, but met with the opposition of commanding officer, who protested to these headquarters against the proposed cedure. Telegraphic orders were promptly issued from these headquarters direc that every unprotected person upon the military reservation submit to vaccina and in the case of civilians who refused, that they be removed therefrom.

Two cases of typhoid fever, contracted prior to arrival at the camp, were rep at the mobilization camp, Moorehead City, N. C., and three cases, contracted to arrival at camp, were reported at the mobilization camp, Birmingham, Ala., one death from typhoid was reported at the mobilization camp, Nashville, T but so far as reports received in this office are concerned, no case occurred contact with these.

Among the troops first returned for muster out were three regiments of Infant New York State, which had suffered an outbreak of paratyphoid fever contract

llen, Tex. These regiments were, upon their return, encamped at Camp Whit-
n. A sanitary inspector was assigned to duty at this camp with instructions to
ch for all carriers and to supervise the work of vaccinating all the members of
command. To assist him in the work of identifying carriers, two Medical Reserve
ps officers, who are experts in this line of work, were assigned to active duty and
cted to report to him. The command was maintained in quarantine, the stools
very individual were examined, and those who developed the disease were trans-
ed to civil hospitals for care and treatment. The carriers were isolated and reported
he State board of health, in compliance with its request, in order that they might
p these cases under observation after muster out and their return to their homes,
revent spread of the disease to the communities to which the men returned. The
k was efficiently and expeditiously carried out with safety to the public. No
ension occurred among the troops after their return.

uch adverse comment was made because these troops were placed in camp during
l weather; steps were taken to provide floors for tents and to construct mess shelters.
wever, before this work was completed one regiment was mustered out at the
p and the others were sent to their armories; the sick were sent to the nearest
l hospital. After arrival at the armories, examinations were continued until all
been examined and cases of the disease disposed of as noted above; the muster
was then completed.

n view of the fact that inspector instructors and sergeant instructors had been
duty with the National Guard, it seems strange that there should have been so
ch difficulty experienced in making out the prescribed forms and in rendering
orts. In the simple matter of personal reports and changes of status, they either
lected to forward them, or incorrect reports were forwarded, entailing consider-
e correspondence from this office and the issue of circulars in order to obtain the
essary data concerning the personnel of the Medical Department in this de-
tment.

here also was almost universal ignorance of the proper method of purchasing
plies in emergency and of securing medical attendance and hospital care for the
who could not be cared for in camps, or who were taken sick while on detached
vice. Bills were sent into this office requesting payment without the necessary
chers, and one junior officer returned a letter of instructions concerning the
paration of vouchers, with the request that the blank be prepared in this office
h the necessary correction and that it be sent to the creditor for his signature.

he absence of the regular sanitary inspector from these headquarters was much
, and if there is to be another mobilization, it would seem essential that one, or
erably two, should be assigned here for the single purpose of making inspections
he Medical Department work and the sanitary conditions of the mobilization
ps. This inspection should be made at the earliest possible moment after the
val of troops and should be as comprehensive as possible. He should have power
orrect errors of sanitation of the Medical Department organization on the ground,
he name of the department commander. If possible, he should be accompanied
an experienced civilian clerk and a sergeant first class of considerable service
could instruct the noncommissioned officers in their clerical and administra-
duties.

o doubt much was learned by all concerned in the mobilization and muster in
ne National Guard, and the experience gained will be of value in future mobili-
ons. It was apparent that few medical officers of the Guard, when mustered
the Federal service, had an adequate conception of their duties, responsibilities,
requirements.

The department surgeon, Western Department, reports the general
lth of the troops in that department during the year as having
n satisfactory in every respect, no diseases due to insanitary
ditions having been reported from any post.

He reports 3,363 admissions to sick report during the year, and
admission rate of 482.3 per thousand as compared with 559.56
1915; the mean strength of the department during the period
s 6,972.

A total of 6,750 venereal prophylactic treatments were adminis-
ed during the year. The admission rate per thousand for venereal
eases, as reported by the department surgeon, was 72.29, as
npared with 72.59 during the preceding year.

Regarding sanitary conditions and the water supply, the depa ment surgeon states:

The sanitary conditions throughout the department for the year were very go No inspections were made by the sanitary inspector of the department during year, owing to the lack of mileage.

As stated in last year's report, the water supply of the Presidio of San Franci Fort Winfield Scott, the Letterman General Hospital, Fort Mason, and trans dock is obtained from a small stream (Lobus Creek), very liable to contaminati This water has for some time been subjected to mechanical filtration. Last y it was recommended that a concrete dam and two sedimentation tanks be built replace the present plant, which is old and inadequate. This recommendation approved and bids for the new plant will be opened in the near future. A chlor apparatus was installed September 23, 1916, and has been giving satisfactory servi

To prevent contamination of the watershed in question, relief sewers for flood wa and sewer connection by all residents of the property there is required. S remedial measures have been taken during the year, and joint periodical inspecti of the premises are now made under the continual and joint supervision of the bo of health of the city, the surgeon, and the quartermaster of the Presidio.

A strip of land has also been purchased by the Government between Fiftee and Twenty-fourth Avenues so that the military authorities may take adequ means to protect the watershed of this upland. Furthermore, the city of San Fr cisco has applied to Congress for the right to maintain a concrete sewer across a tion of the Presidio grounds for storm water, which hitherto has washed much f into the creek.

The erection of a dam at Twenty-fourth Avenue is also contemplated, which still further reduce pollution of these waters by reducing the watershed liable contamination.

One sanitary measure of importance still remains to be taken, however—that to secure the balance of the holdings on the south bank of Lobus Creek to the to the watershed. The extent is to tender this land to the Federal Government in change for the land under the Fine Arts Building of the exposition.

The military importance of securing a good water supply here should be clea appreciated. This is the only running water supply on the peninsula that can be shut off in time of war. It is adequate to supply all the agencies of the Fed Government, and the only measures in addition to those now being taken and s to be taken is the acquirement of this land on the south bank of Lobus Creek.

With reference to hospital accommodations at Fort Rosecrans is stated.

The hospital at Fort Rosecrans is in size entirely inadequate. It is used as a b hospital for the troops at Camp Walter R. Taliaferro, San Diego; Camp Lawrenc Hearn, at Palm City; the Signal Corps Aviation School and one company of Infan at Tecate. The hospital is continually overcrowded and many of the patients being cared for in tents. Estimates for the erection of a 24-bed ward are now b prepared.

The department surgeon, Central Department, reports as follo

The medical officers in this department December 31, 1916, consisted of 1 colo 2 captains, Medical Reserve Corps, 12 first lieutenants, 2 dental surgeons, an contract surgeon.

One lieutenant, Medical Reserve Corps, was ordered on active duty for a limi period in connection with special eye and ear examinations of candidates for Officers' Reserve Corps, aviation section. There were also present in the departm on temporary assignment in connection with muster out of National Guard, 5 capta Medical Corps, and 1 first lieutenant, Medical Reserve Corps.

There has been felt an acute shortage of medical officers within the departm for the larger part of the year, the greater number of posts having been without services of a medical officer. Medical service has been rendered at a number of vacated posts by the visit, which generally has been satisfactory. A single compl emanated from one of the doctors who feels that he has been grossly underpaid services rendered at a post about 3 miles distant.

The Medical Department enlisted personnel on December 31, 1916, comprised 4 sergeants, first class; 8 sergeants, 1 lance corporal, 5 acting cooks; 22 privates, f class; and 38 privates.

Referring to the caliber of recruits received at one of the stations, the post surg reports as follows:

It is also noted that of 15 recruits, Medical Department, received at this station ing the last seven months, only 5 of them have shown sufficient intelligence to rn any of the more intricate duties of a post hospital. Two additional ones have wn great willingness, but are handicapped by a lack of education, and only one bably will succeed in completing satisfactorily a subject in course of instruction v carried on; the other 8 have been more or less worthless and lack intelligence l interest, and when offered opportunity to improve themselves they showed no bition and failed to make the least effort to take advantage thereof. In general, recruits received for this detachment seemed far inferior in appearance, etc., to average received for the line organizations here. It is recommended that recruits transfer to the Medical Department from companies at recruit depots be selected medical officers who understand the duties of the enlisted men in their department order to transfer the right men for the work."

Much of the time (as at present) at nine stations there were two men or less, a num- entirely inadequate to properly care for the buildings and property pertaining the Medical Department. With this limited number, however, such buildings l property have been protected in general.

A large proportion of the privates and privates first class are inexperienced, owing the fact that the greater number of instructed soldiers were sent to the Southern partment during the year in connection with the mobilization of the National ard on the Mexican border, they being superseded in a large measure by recruits. e discipline of the corps, considering the large influx of recruits and confusing nditions, was reasonably good.

The changes during the year were:

Gain.

enlistment	8
reenlistment	2
transfer from other stations	119
transfer from the line	6
om desertion	4
Total	139

Loss.

scharge by expiration term of service	6
scharge for disability	0
scharge on account of traits of character not suited for the military service par. 148½, A. R.)	1
scharge by purchase	4
scharge by sentence of general court martial	9
scharge without honor	3
nsferred	133
tired	1
ed	2
serted	13
Total	172

The loss from all causes exceeded the gain by 33. As formerly expressed, it is vious that the inducements for service in the Medical Department for enlisted sonnel are inferior to those offered in other branches of the service, causing desirable l trained men to leave by transfer and also to reenlist for service in the line. It oped, however, that the two new grades established by the act of June 3, 1916, l act as a stimulus and prevent this exodus from the enlisted ranks of the Medical partment.

Owing to the large number of recruits as well as to the constant movement of dical Department personnel for muster-in and muster-out duty, it has been practicable to hold more than one examination within the department for pro- tion to the grade of sergeant.

The depletion of strength of command by transfer from this department to the thern Department, to which reference has been made in two previous annual orts, has continued.

The average strength of command for 1916 was 1,540.98, a decrease of 1,192.64 from 5, about 44 per cent. For a number of months there has been no unit (company) h the department.

HEALTH OF COMMAND.

The health of command has been generally satisfactory, the admission rate thousand being 746.28 against 844.91 for last year. An increase in tonsilitis over l year is noted, although a marked decrease is shown in the admission rate for influen

An extensive epidemic of whooping cough prevailed among the children at F Leavenworth during March and April; no cases occurred among the troops. T cases of scarlet fever are also reported from Fort Leavenworth among the childr of the post. There were also present at the post four cases of mumps, two in recru who had contracted the infection before arrival at the post and two among t Quartermaster Corps detachment. Four cases of measles occurred at Fort Leav worth in recruits who had contracted the disease before arrival, and four cases a occurred among children, confined to two families, the source of infection be reported at the town of Leavenworth. Necessary measures were taken to isolate infectious diseases in hospital in case of troops and quarantine steps taken in case families. No spread occurred except in the case of whooping cough epidem although this did not assume serious proportions.

Fort Riley reports a number of cases of smallpox and infantile paralysis in t vicinity of the reservation, but prompt measures of quarantine in each case sa guarded the garrison against infection.

The total admissions to sick report from disease and injury were 1,150, an admiss rate of 746.28 per thousand. Thirteen thousand nine hundred and sixty-one da were lost by sickness, making a constantly noneffective rate per thousand from causes of 24.82.

The chief causes of admission to sick report were:

Tonsillitis	
Gonorrhœa and sequelae	
Influenza	
Bronchitis	
Rheumatism	
Syphilis	
Alcoholism	
Eye, diseases of	
Ear, diseases of	
Measles	
Tuberculosis	
Venereal ulcer and sequelæ	
Appendicitis	
Dysentery	
Malaria	
Mumps	
Pneumonia	
Diarrhea	
Diphtheria	

There has been no case of typhoid fever in the department during the year amo the Regular Establishment. Two cases occurred at Fort Snelling, Minn., among t First Minnesota Field Artillery.

Number of cases in which typhoid prophylaxis was administered during the period, Jan. 1 to Dec. 31, 1916

The admission rate for venereal disease for the year was 79.17, an increase over t rate reported for last year, which was 63.29. The increased rate, in the opinion this office, may logically be ascribed to the absence of line and medical officers of t regular service from most posts, as well as the large proportion of cases sent fr recruiting stations for treatment.

SANITATION.

The posts in this department, all with garrisons depleted, have been caring themselves with more or less difficulty owing to the shortage of personnel. Gene sanitary conditions are reported as being excellent. There is nothing of special no to report under this head.

Fort Leavenworth announces that the water supply in general has been satisfa tory, although overdosed with hypochlorites at times.

)wing to the removal of the department laboratory to the Southern Department, bacteriological and other examinations have been made at the Army Medical hool, Washington. In consequence, fewer routine examinations of water have en made.

The smoke nuisance previously reported by Fort Leavenworth continues unabated. is post reports that the central heating plant was completed more than a year ago, t that no furnaces have been installed in that building; as a result the hospital constantly filled with smoke and soot from the soft coal burned in the furnaces in hospital building.

The surgeon at Fort Riley, in referring to construction and repairs of hospitals d quarters for sergeants, first class, states:

'Nothing was allowed for the year for the latter, and only storm sashes for the lation hospital (which is unoccupied), also a few lockers for the cleaning material porches of main hospital were added. All other repairs were not allowed, and buildings affected have therefore deteriorated much more rapidly than they would d necessary repairs been allowed."

There were 13 deaths during the year, with a ratio of 8.44 per thousand, a decided rease over that of last year, 2.6 per thousand.

Eighteen men were discharged on certificate of disability, nine not in line of duty.

Twenty men were transferred to the general hospitals for observation and treatment d two sent to the Government Hospital for the Insane, Washington, D. C.

MILITIA.

Largely due to the assignment of regular officers to each camp of mobilization, neral health of militia organizations in camp was entirely satisfactory, as reflected sanitary reports submitted through this office. Consequent on the establishment mobilization camps in the 14 States within the geographical limits of this department, 58 Medical Reserve Corps officers were called into active service for examination in connection with muster in of the militia. Sixteen officers of the Medical rps were assigned to the mobilization camps as general supervisors. Thirty-six listed men of the Medical Department were also assigned to these camps from sts within this department.

Conditions at camps, as regards sanitary arrangements for general safeguarding of health of the militia, were on the whole quite satisfactory, no serious epidemics ing reported. A general lack of sanitary material was noted in the case of Ohio ops.

Smallpox and typhoid protection was, in general, promptly accomplished with the cessary vaccines shipped from Washington and elsewhere. The field and regimental hospitals, issued without requisition to serve as camp hospitals, usually ived after improvisation of camp hospitals from militia equipment. Owing to the iority of arrival of militia medical officers at most of the mobilization camps, the le and duties of "camp surgeon" remained with them even after the arrival of gular medical officers, although it was the desire of the department surgeon that ch Regular officers should supersede, both nominally and actually, militia medical icers, as directed in paragraph 593, Militia Medical Department, 1916. However, conduct of muster in physical examinations alone, under the urgent conditions taining, required such constant supervision by the Regular medical officers that first incumbent was usually allowed to continue in the office of camp surgeon. ving to the press of work in this office consequent on mobilization, and due to the t that the sanitary inspector was assigned to duty at Fort Benjamin Harrison as mp surgeon, it was not practicable for the department surgeon or the sanitary pector to make inspection of mobilization camps.

The large percentage of rejections at the muster in physical examinations in some the State camps appears to the department surgeon as the most disappointing and creditable feature of the mobilization, indicating that the enlistment examinations d been nominal and superficial.

The department surgeon, Southern Department, states:

The following report of the operations of the Medical Department in the Southern partment is submitted as a general survey only of work done and results attained er a wide extent of territory and with troops of all degrees of experience and training. e more important special reports on which this communication is based, which sent herewith, will give in more detail what is here reported in brief. Certain portant data concerning health of troops during the early months of 1917 are cluded in this report, but figures given are only approximately correct, as at the ne of writing, all returns are not in the office. On April 1, the demobilization of the Militia was practically over in so far as the Southern Department is concern and it is thought best to include such data as may prove valuable in view of t prospective organization of a great army for the defense of the country.

PERSONNEL.

Officers of the regular Medical Department, including lieutenants of the Medi Reserve Corps, reached a maximum of 356 in the Southern Department.

Of mobile sanitary units, there were six permanently organized field hospit and six ambulance companies, to which three each have been added with provisio organizations. All of the permanent units are now supplied with motor transpor tion; the provisional organizations as yet having animal-drawn vehicles.

Deducting all Regular officers whose duties were altogether with militia, all t extra personnel at base and camp hospitals made necessary by militia patients, a a few stationed at remote outpost camps, there have never been enough to furn the authorized quota for the Regular force in the department, and of the mobile un only half the authorized number were at first available, increased later to thr fourths requisite number by organization in the Southern Department of three p visional field and ambulance companies.

The expedition into Mexico was much better supplied with medical person than the Regular troops remaining north of the border, but even in this colum was not always easy to maintain an allowance of two medical officers to a regime and the regiments on the American side were often reduced to one medical offic a lieutenant of the Medical Reserve Corps. To the last-named troops, of cour well equipped camp and base hospitals were easily accessible.

Medical officers of Militia attained a maximum number of 559 and about one-h only of the necessary field sanitary units were mustered into the United States servi

The number of militia medical officers fluctuated greatly by loss from resignati not always compensated for by new appointments.

It is a conservative statement that had all the United States forces in the depa ment been called upon to advance into Mexico, the shortage of medical offic Regulars and Militia, would have been about 600. This estimate takes into conside tion the necessary medical personnel at headquarters of field armies and divisio evacuation hospitals, trains, and a proper service of the base, as well as a full qu for regiments, separate companies and battalions, and, of course, the authori number of field hospital and ambulance companies for 13 divisions and nine indepe ent brigades.

As it fortunately happened, the medical force, Regulars and Militia, was suffici to cope with the situation, both in the admirably managed expedition into Mex and throughout the large camps in the Southern Department.

Of Regular dental surgeons, there was a maximum of 43. Dental officers of mili were almost nonexistent at first, but finally 56 were mustered into service and report for duty before all of them could be supplied with equipment, as dental engi seemed to be almost unobtainable in the United States.

During the beginning of the mobilization, the Regular dentists were almost ov whelmed with work, but toward the close of the year the work was well in ha for all troops.

The faithful and efficient work of the medical and dental officers is worthy of praise. Few, indeed, have failed to meet the many and new responsibilities wh were imposed upon them.

During the height of the mobilization many of the brightest young physici and surgeons of the country gave their services as officers of the Medical Reserve Cor When it became apparent that active war was not impending, many of these m were relieved from active service in order to resume their important duties in ci life. Some have successfully passed the examinations for the Medical Corps and ma excellent ones remain, barred by age from the Regular corps. A large proportion the Medical Reserve Corps who have proved themselves on the border have b recommended for higher grades in the Officers' Reserve Corps. Some physici were enrolled in the Medical Reserve Corps and sent to the department who w entirely unfitted by old age, physical disability, temperament, or education for position of a medical officer, but the proportion to the whole number of Medi Reserve Corps officers was very small.

The medical officers of militia were almost invariably high-grade men of excell professional attainments. From them were drawn for service at some of the larg camp hospitals, surgical operators, pathologists, and specialists of the most effici type.

There is also no lack of theoretical knowledge of military hygiene and camp sa- tation on the part of the large majority of militia medical officers, some of whom h ined much experience at camps of the National Guard. The weak points are in litary medical administration, and especially in the rendering and keeping of ports and records of sick and wounded and the handling of other essential papers.

It is hard for an officer who has not grown up in the service from lieutenant to major grasp the fact that the "red tape" of the Army is the result of years of experience d is really the simplest way yet devised of "running the machine" under the law th justice to the Government and the individual, even though the system is still sceptible of much simplification.

In his professional dealings with his patients, who are generally from his own sec- n of home territory, and to a less degree in his sanitation work, the medical officer militia is much handicapped in doing his duty "without fear or favor." In pro- uncing upon cases "not in line of duty" or in recommending sick leaves, sick fur- ighs, transfers to hospitals, etc., he must constantly confront the dilemma of either ciding against his real opinion or risking his popularity and professional success in il life.

This is a hard position in which to be placed, but it is inseparable from the system using for United States service troops with concentrated local influence, political social.

Another handicap is the absence of trained noncommissioned officers for the prepa- tion of reports and records. Enlisted men with clerical experience in civil life are adily obtainable from the ranks of the militia, but they must be trained for their ilitary duties by medical officers to whom the paper work of the Medical Depart- ent is utterly unfamiliar.

The experience gained by the medical officers and enlisted men of the militia dur- g the mobilization of 1916 has been invaluable in spite of handicaps, and their rvices, if again needed, will prove a very valuable asset to a large National Army.

The maximum of enlisted noncommissioned officers and men of the Medical Depart ent was 3,045, and of militia 4,144. A casual camp for recruits of the Medical epartment was maintained at Fort Sam Houston and one at Fort Bliss, to which a fficient number of men were supplied as needed and from which they were distrib- ed after a brief period of training. Considering the rawness of this personnel, very od discipline prevailed at the hospitals, and excellent progress was made in training really valuable force. The lack of old, experienced, noncommissioned officers in e Medical Department stimulated efforts to train and promote the best privates, th tolerably good results. Many of the best sergeants and sergeants first class were eded to check and supervise the medical records of militia organizations at the ices of district surgeons, and many more could have been used to advantage in the aining of the militia in proper preparation of papers and records. The creation of ncommissioned officers with limited warrant in the mobile units released many luable men for other uses.

The enlisted personnel of the Medical Department in the militia was of high quality, ntaining many medical students of good education, but inexperienced for the most rt in the duties required of them, oftentimes expecting to perform professional work ly proper for officers and occasionally resenting or neglecting the humbler but just necessary duties of attendants and laborers. Some State organizations reported ithout medical personnel of any kind, but in course of time the deficiency was in rt made up by transfer of enlisted men of the line.

The conduct of the enlisted force was admirable, as, indeed, was that of the militia ldiers generally throughout the department. Whatever the defects of the militia stem, the men were a splendid body of Americans from the standpoint of personal havior.

The maximum number of female nurses was 251, of which 67 were members of the rmy Nurse Corps and 184 were reserve nurses furnished through the Red Cross.

Nurses were on duty in five base hospitals and six of the larger camp hospitals. heir services have been uniformly excellent. The Army thoroughly appreciated e ministrations of these fine women, and the reserve nurses cheerfully adapted emselves to the discomforts of border service.

There was but one incident of insubordination and desertion among the nurses ported to this office.

Strength, Sickness, and Mortality.

STRENGTH.

The strength of the command in the Southern Department during the calend year 1916 varied from a minimum in February, 1915, of 26,068 officers and enliste men, all of the Regular Army, to a maximum in August of 158,569 officers and enliste men, regulars and militia.

At the end of the year the regular troops had reached the maximum strength 49,164, and the militia, which had attained its greatest strength of 110,526 in Augus was reduced to 82,174.

The mobilization of the militia began in May with the muster into Federal servi of troops from Texas, Arizona and New Mexico, of whom about 5,000 were secur in May and June.

On June 18, the entire National Guard of the States was called out at home station and by the end of July, 105,137 were distributed in large camps along the borde The number of militia increased during August to 110,526 and diminished graduall to the end of the year by the loss of certain organizations sent home for muster out, loss which was partially compensated for by the arrival of new troops which had bee held for training at the home camps. Altogether about 130,000 State troops serv in the Southern Department during the year 1916.

The demobilization of the Militia has been carried on as rapidly as possible sin the close of the calendar year and was very nearly completed on April 1, 1917, which time all the Militia organizations except those of the States composing t Southern Department, had left the department for muster out.

The handling of such a large number of newly-raised troops, in addition to abo 47,000 regulars called for extraordinary efforts on the part of the Medical Corps along t lines of camp inspection and sanitation; supplies, erection of temporary hospitals f the care of the sick, and instruction of officers and men of the sanitary troops wi Militia regiments, and of the mobile field units.

HEALTH OF TROOPS.

The statistical tables and reports of medical officers accompanying this report wi show how successful the efforts to guard the health of the troops, to care for the sic and to instruct the sanitary personnel have been. Beginning with July 31, wh the strength of troops was nearly at its maximum, weekly statistical reports of si were wired to the Surgeon General, a survey of which shows a sick rate for regula from 10.8 to 35 per 1,000 and for militia from 9 to 31 per 1,000. At the end of the ye the rates for the regulars and militia equal, namely, 31 per 1,000. These rates co pare favorably with the lowest attained in the Army in time of peace, and sh quite clearly that camping on the border has involved no more risk to life and heal than if the troops had stayed at home.

The Southern Department, comprising as it does a wide extent of country wi much diversity of climate, presents a number of special problems in connection wi season and terrain to be taken into consideration in the sanitary care of troops.

During the hot season, the troops in the Brownsville district were subjected intense heat and torrential rains, causing almost bottomless mud, which, with mo quitoes and an unusual plague of flies, made this section most uncomfortable for cam life. With the advent of winter, the climate in this section becomes delightful.

The western districts—El Paso, New Mexico, Deming, Arizona, and Nogales have a dry summer climate, healthful and invigorating in spite of heat, but duri the late autumn the nights become very cold; in winter the weather is at times ve disagreeable, lasting well into spring. The weekly sick rates by districts show to limited extent the effect of season and climate upon the health of troops, but oth conditions resulting from special duties of troops and from the limited outbreak certain infections, for example, paratyphoid fever and malaria in Brownsville d trict played a greater part than climate and season.

A serious outbreak of pneumonia and the present epidemic of influenza, measl and mumps in western districts are exceptions. Here camp life, partly on accou of climatic conditions, favored the spread of the infections and was a principal existi cause of pneumonia and other acute respiratory diseases.

A brief survey of the weekly sick reports of districts shows for the calendar ye 1916 that highest rates for both regulars and militia were reached in November a December.

Districts.	Highest rate per 1,000 weekly, 1916: Regulars.	Highest rate per 1,000 weekly, 1916: Militia.	Season: Regulars.	Season: Militia.
rownsville	31	35	November	November.
ew York division (militia)		30		Do.
n Antonio (Camp Wilson)	39	33	December	September.
aredo	37	28	September	December.
agle Pass	42	27	December	November.
el Rio	34		September and November.	
ig Bend	46	50	December	December.
l Paso	34	43	do	Do.
ew Mexico	36	54	August	Do.
rizona	38	50	December	Do.
ogales	48	101	do	Do.
xpeditionary force in Mexico	29		November	

Unfortunately, the favorable sick rates for the calendar year 1916 have not con- nued into 1917. The wide prevalence of influenza, measles and mumps in the estern districts, the incidence of pneumonia and bronchitis in the same territory ave greatly raised the figures for both sickness and mortality.

Many of the militia regiments in that part of the department were late comers from e Southern States, and arriving at the beginning of cold weather, suffered keenly om the change of climate. Among the men, mostly from rural districts, were many onimmune to measles and mumps, and as these diseases are widely spread in the order towns, troops at Deming, El Paso, Nogales, and Douglas were seriously affected obar pneumonia appeared and has proved the principal cause of mortality. Broncho- neumonia and empyema have been serious complications in measles.

The rise in sick rates has manifested itself mainly in the militia and during January, ebruary, and March have reached the maximum figure at Nogales (among Alabama oops) of 113.2 per 1,000, and for regulars at the same place 57.7 per 1,000.

During the same months the Brownsville district, enjoying beautiful winter weather, as not exceeded the rate of 25 per 1,000 for either militia or Regulars.

At Camp Wilson, adjoining Fort Sam Houston, sick rates increased materially in nuary, February, and March, due to measles, which is very prevalent in San ntonio, and which, in this camp, affected principally the Alabama and Mississippi oops.

High rates for Camp Wilson have been in January, February, and March, 39.8 for gulars and 59.7 for militia.

The great difference between organizations in this camp is shown by the enormous te for measles in two regiments—First Alabama Cavalry and First Mississippi In- ntry, which, with 2,411 strength, had 274 cases of measles, or 12.9 per cent; all the her troops in camp (strength, 6,951) showing only 0.66 per cent of measles.

MORTALITY.

In the year 1916, there were 232 deaths among Regular troops, of which 149 were om injuries of all kinds, including deaths in action in the Mexican expedition.

The rate per 1,000 was 3.65 from injury and 2.03 from disease, a total rate of 5.68.

For the eight months of 1916 in which militia were in the Southern Department, ere occurred among them 156 deaths, of which 43 were from injury and 113 from sease.

Averaging the strength of the State troops as 76,645, there is shown a death rate of 03 per 1,000 for the period May–December, 1916, or for disease 1.47 and for injury ly 0.56.

Except for the heavy incidence of pneumonia, which began in December, the ortality rates of both Regulars and militia would have been considerably lower, ut as has been already mentioned, this disease beginning in epidemic form in Decem- er, has taken a heavy toll during the first three months of 1917.

HEALTH STATISTICS.

Admissions during calendar year 1916 for the following diseases:

Mean strength	40,732
Total admissions to sick report during 1916	30,004
Days lost on account of sickness during 1916	360,439
Constantly noneffective during 1916	984.

	Admissions.	Ratio per 1,000.		Admissions.	Rat per 1,00
Malaria	729	17.79	Nervous diseases	550	13.
Typhoid	11	.27	Pneumonia	78	1.
Paratyphoid	103	2.53	Tonsillitis	2,136	52.
Variola	7	.17	Respiratory disease	1,834	45.
Measles	308	7.56	Digestive diseases	5,476	136.
Diphtheria	21	.51	Injuries	5,463	134.
Scarlet fever	10	.23	Gunshot wounds from automatic pistol	195	4.
Influenza	995	24.43	Gunshot wounds, rifle	41	1.
Entamoebic dysentery	150	3.68	Skin diseases	1,393	34.
Dysentery, bacillary	39	.96	Dengue	1,473	36.
Tuberculosis, pulmonary	139	3.41	Mumps	70	1.
Syphilis	827	20.30	Sunstroke	32	.
Chancroid	1,327	32.58	Other diseases	2,297	56.
Gonorrhea	3,583	87.97			
Rheumatic fever	404	9.92	Total	30,004	.....
Alcoholism	280	6.87			
Insanity	33	.81			

Deaths, Regulars, from January 1, 1916, to December 31. 1916.

Cause of death.	In line of duty.	Cause of death.	In li of du
Diseases:		Diseases—Continued.	
Arteriosclerosis	1	Typhoid fever	
Angina pectoris	1	Tumor of brain	
Abscess of liver	1	Tuberculosis, pulmonary	
Atrophy of liver	1	Uremia	
Cardiac dilatation	3		
Cerebral hemorrhage	4	Total	
Dysentery, bacillary	1		
Dysentary, entamœbic	2	Injuries:	
Dysentary, type undetermined	1	Drowning, accidental	
Enterocolitis	1	Electrocution, accidental	
Empyema	2	Ether narcosis	
Erysipelas	1	Fractured skull, accidental	
Intestinal obstruction	1	Fractured vertebræ, accidental	
Ludwigs angina	1	Gunshot wounds—	
Laryngitis	1	Accidental	
Meningitis, pneumococcic	1	Assault	
Meningitis, cerebrospinal	3	Self-inflicted (melancholy)	
Meningitis, septic	1	Mexican bandits	
Meningitis, tuberculous	1	Snipers	
Miscellaneous	5	Lightning stroke	
Malaria, tertian	1	Miscellaneous	
Nephritis	1	Ruptured kidney	
Peritonitis	10	Sunstroke	
Pericarditis	2		
Pneumonia, lobar	16	Total	
Pneumonia, broncho	1		
Pyemia	1	Total number of deaths, in line of duty	
Ruptured spleen	1		
Septicemia	4		

Deaths, Regulars, from January 1, 1916, to December 31, 1916.

Cause of death.	Not in line of duty.
eases:	
Pneumonia, lobar	1
Syphilis, tertiary	4
Tumor, type undetermined	1
Total	6
uries:	
Alcoholism	2
Alcohol, poisoning	1
Drowning, accidental, while on leave	3
Fractured skull	3
Gunshot wounds—	
Accidental, while on leave	2
Injuries—Continued.	
Gunshot wounds—Continued.	
Homicidal	8
Miscellaneous	8
Suicide—	
Automatic pistol	9
Hanging	1
Methyl alcohol	1
Rifle	17
Total	55
Total number of deaths, not in line of duty	61

Discharged on certificate of disability during 1916.

REGULARS.

	In line of duty.	Not in line of duty.
urasthenia	2	3
ective vision	11	18
pendicitis	1	4
hritis	4	1
ctures	13	4
ophy		1
nary diseases	1	17
atitis		1
ective mental development		16
initis		1
mentia precox	7	46
rt disease	8	23
ilepsy		33
uries	16	4
eases of joints, bones	43	45
eases of ears	10	9
nia	6	11
t feet	1	66
piratory diseases	8	20
oholism		3
Exophthalmic goiter	4	7
Neuritis	1	
Hypochondriasis		2
Nervous diseases	8	14
Mouth diseases	1	
Venereal diseases		64
Digestive diseases	10	6
Varicose veins	2	6
Paralysis	5	3
Rheumatism	2	1
Lymphatic diseases		1
Dysentery	1	
Arteriosclerosis	2	
Drug habit		3
Skin diseases	2	
Meningitis, cerebrospinal	1	
Sweaty feet		1
Tabes Dorsalis		1
	170	435

Admissions during period May 1, 1916, to December 31, 1916, for the following eases:

MILITIA.

[Mean strength, 76,645.]

	Admissions.	Ratio per 1,000.
aria	1,212	15.81
hoid fever	33	.43
atyphoid fever	247	3.22
iola	3	.04
sles	477	6.22
htheria	29	.40
rlet fever	5	.07
erculosis, pulmonary	96	1.25
uenza	2,310	30.14
sentery, entamœbic	13	.17
sentery, bacillary	28	.37
hilis	406	5.30
ncroid	589	7.68
orrhea	2,399	31.30
umatic fever	904	11.79
oholism	108	1.40
Insanity	19	.25
Nervous diseases	1,212	15.81
Pneumonia	114	1.48
Tonsillitis	2,447	31.93
Respiratory diseases	5,651	73.73
Digestive diseases	11,966	156.12
Injuries	6,012	78.44
Gunshot wounds, automatic pistol	56	.74
Gunshot wounds, rifle	39	.51
Skin diseases	2,683	35.00
Dengue fever	3,159	41.22
Mumps	130	1.70
Sunstroke	17	.22
Other diseases	8,214	107.17
	50,578	

Deaths, Militia, from May 1, 1916, to December 31, 1916.

Cause of death.	In line of duty.	Cause of death.	In l of du
Diseases:		Diseases—Continued.	
Appendicitis	2	Rupture of liver	
Abscess of liver	1	Septicemia	
Cardiac dilatation	2	Toxemia, cause not given	
Cardiac hypertrophy	1	Tuberculosis, miliary	
Dysentery, bacillary	1	Tumor of brain	
Dysentery, entamœbic	1	Ulcer	
Dysentery, type undetermined	3		
Diabetes mellitus	2	Total	
Endocarditis	2		
Embolus	1	Injuries:	
Erysipelas	1	Drowning, accidental	
Fever, type undetermined	1	Fractured skull, accidental	
Enterocolitis	1	Fractured vertebræ, accidental	
Intestinal obstruction	2	Gunshot wounds—	
Meningitis, cerebrospinal	4	Accidental	
Meningitis, type undetermined	1	Blank cartridge	
Miscellaneous	5	Assault	
Nephritis	3	Miscellaneous	
Peritonitis	12	Sunstroke	
Pneumonia, lobar	29		
Pneumonia, broncho	9	Total	
Pulmonary abscess	1		
Pemphigus	1	Total number of deaths in line of duty	
Paratyphoid	4		

Deaths, Militia, from May 1, 1916, to December 31, 1916.

Cause of death.	Not in line of duty.	Cause of death.	No lin du
Diseases:		Injuries—Continued.	
Cirrhosis of liver	1	Gunshot wounds—	
Cardiac dilatation	2	Military police	
Diabetic coma	1	Carelessness	
Meningitis, tuberculous	1	Suicide—	
Peritonitis	1	Automatic pistol	
Septicemia	1	Rifle	
Syphilis, cerebrospinal	1	Phenol	
Tumor, type undetermined	1		
Uremia	1	Total	
Miscellaneous	2		
Total	12	Total number of deaths not in line of duty	
Injuries:			
Drowning, violation orders	1		
Drowning, while intoxicated	1		
Fractured skull	1		

RECAPITULATION.

REGULAR ARMY.

Average strength (January-December, 1916)		40,7
Admissions		30,0
Days lost		360,43
Constantly noneffective		98
Deaths:		
Disease	83	
Injury	149	
		2
Discharge for disability:		
In line of duty		17
Not in line of duty		43

MILITIA.

Average strength (May-December, 1916)		76,6
Admissions		50,57
Days lost		401,2
Constantly noneffective		1,6
Deaths:		
Disease	113	
Injury	43	
		15
Discharge for disability		1,71

SPECIAL DISEASES.

Typhoid fever.—Forty-four cases were reported for the period; 11 for Regulars with atio of 0.27 per 1,000, 33 for militia with a ratio of 0.43 per 1,000. Some of these lividuals were unprotected, some were inoculated with State vaccines not beyond spicion of imperfect preparation or administration, while a few had been thoroughly ccinated at a recent date.

Seven cases developed in the punitive expedition; one was unprotected and the hers had received the prophylaxis from two and one-half to five years before. There re seven cases at Terlinqua, Tex., in the Big Ben district. The first two (civilian ployees) were unprotected, and the one death which resulted was in the remaining e protected cases—a first lieutenant, Medical Reserve Corps, on December 12, 1916. o had also a history of a previous attack of typhoid fever.

Typhus fever.—No typhus fever occurred among troops, which is gratifying, as it is own to be present in El Paso and very prevalent in northern Mexico. Many of the ops must have been more or less directly exposed to it. So far as reported, only e case, in a civilian employee (Mexican), was treated by the Army.

Paratyphoid fever.—This disease is common throughout the more densely populated tions of the department. There were 450 cases up to December 31. Ninety-three these were from the punitive expedition, but the division surgeon thinks several nes as many really developed in the guise of mild continued fevers which could not accurately diagnosed in the field. The disease ceased after the command received paratyphoid prophylaxis.

Upward of 175 cases were from the New York division stationed at McAllen, Tex., l vicinity. Of these, more than 60 were from the Fourteenth New York Infantry, to 30 from the Second, Twelfth, and Sixty-ninth Infantry of the same State, and rest from 14 other organizations.

The command, with possibly a few exceptions, due to return of organizations to eir home State for muster out, was inoculated with mixed vaccines of paratyphoid ." and "B." As some cases occurred about the same time at the nearby camps of nna, Llano Grande, and Mercedes, these commands were also immunized. The mission rate was highest in October and November. The administration of the phylaxis was nearly completed by December 1 and thereafter only an occasional e of paratyphoid appeared.

Maj. C. LeR. Cole, Medical Department, was sent with a portable laboratory outfit study the disease in the Brownsville district, and an extensive report is now being pared for publication by Lieut. Col. F. P. Reynolds, the general sanitary inspector Brownsville district, and Majs. Siler and Cole and Lieut. Schule, all of Department boratory No. 1. Outbreaks of paratyphoid have appeared in the United States no ubt many times, but the intensive study of an outbreak with such a large number cases has not yet been recorded.

Malarial fever.—There were 1,941 cases for both Regulars and militia, but many of se were recurrences, the infection having originated elsewhere than at border stans. However, the rate was less by 9 per 1,000 than the whole Army in 1915.

Measles.—Up to the 31st of December, 785 cases were reported, which gives nearly same rate as for the Army in 1915. The presence of nonimmune soldiers in overted amd improperly ventilated tents during cold weather seems to be the chief tor in the spread of the disease. Respiratory complications were most common in colder regions. At the camp hospital, Deming, N. Mex., malaria was found croscopically in 50 per cent of pneumonias, complicating measles.[1] From January 1917, to April 1, 1917, 1,295 admissions have been recorded, 720 of them being from Paso and Nogales districts alone.

Smallpox and scarlet fever.—Nothing of interest was noted with reference to smallpox l scarlet fever. There were 10 cases in all of the former and 15 of the latter.

Diphtheria.—Fifty cases of diphtheria occurred up to December 31. Whenever it peared routine throat examinations revealed a number of carriers; the disease was ld and easily controlled.

Influenza.—There were 3,305 cases of influenza, Regulars and militia included, ich is about 7 per 1,000 less than for the whole Army in 1915. From January 1 to ril 1, 1917, 2,722 more admissions occurred; 1,943 of these were from the El Paso l Nogales districts. These last figures only indicate cases so far recorded from sick l wounded reports in this office, and many reports are still to be received. The ures given are therefore far too low. This disease and other respiratory infections were most prevalent in the colder districts, but the admission rate was general lowered when assemblages in amusement rooms, theaters, etc., were prohibited a proper ventilation of tent quarters was enforced. It is almost impossible to cont the tendency of soldiers to live in tightly closed overheated tents during cold weath One reason for this is that some articles of uniform clothing and bedding as issued winter use are of insufficient weight and too loosely woven to retain body warmth.

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[1] As Deming is in absolutely nonmalarious territory these were cases of "latent" malaria in the kansas National Guard.

18521—17——9

Pneumonia.—In November and December, 1916, the sick and mortality rates both Regulars and militia began a disquieting rise on account of lobar pneumonia a broncho-pneumonia, the latter-named disease generally a complication of measles influenza.

For the Regulars in 1916 there were 78 admissions and 17 deaths; for militia, 114 missions with 38 deaths. (The admission rates are below the actual because trans cards and changes in diagnosis have not been tabulated in this office for statisti purposes, so that many cases marked on original admission as "undetermined" "influenza" were treated later in hospital as pneumonia.)

In the early months of 1917, January, February, and March, pneumonia of bo kinds reached the proportions of a veritable epidemic in the mountainous weste districts of El Paso, Deming, New Mexico, and Arizona. Pneumonia was coincide with an extensive epidemic of measles, mumps, and influenza among the civil popu tion as well as among the troops.

Lobar pneumonia was occasionally and broncho-pneumonia generally a complic tion of measles or influenza.

In the eastern districts of the department where measles was also epidemic, a mo erate incidence of pneumonia only occurred.

In the above-mentioned western districts, much of the militia came from far Sou ern States, arriving late in October, unaccustomed to the great diurnal changes of a d mountain climate.

The return of the expeditionary force from Mexico brought back a body of men w had been most carefully looked after but whose reserve strength had been lowered the long and anxiety-breeding service in Mexico. The men were starving for amu ment and naturally were exposed to infection at moving-picture shows and other pu lic places.

The figures for sickness and mortality in the El Paso, New Mexico, and Arizona d tricts and at Deming, from the beginning of the epidemic in November to April, 19 when it ceased, are as follows, from base and camp hospitals:

	El Paso.		Deming.		Douglas.		Nogales.	
	Regulars.	Militia.	Regulars.	Militia.	Regulars.	Militia.	Regulars.	Militi
Lobar pneumonia:								
Admissions	182	203	2	52	23	5	10	
Deaths	33	39	....	3	2	....	1	
Broncho-pneumonia:								
Admissions	5	8	....	20	15	6	....	
Deaths	3	6	....	12	2	2	....	

A total in these districts of 679 cases of all pneumonias with 132 deaths, of which cases and 29 deaths, are broncho-pneumonia usually as a complication of measl Everything possible was done to check the spread of pneumonia, even to quarantin some of the camps and forbidding the soldiers to visit the towns. The tentage all ance was increased and intensive inspection of tent ventilation at night was institut

At El Paso, Department Laboratory No. 2 undertook the differentiative of type pneumococcus in 150 cases, and serum treatment was given in nearly as many.

Type.	Prevalence of type.	Mortali
	Percentage.	
I	56	
II	20	
III	2	
IV	[illegible]	

An interesting and timely report on this work by Maj. Henry Nichols has been forwarded for publication.

ysentery.—Entamoebic dysentery is endemic in the El Paso district and in the occupied by the punitive expedition. This force was composed of Regulars, h probably accounts for the greater number among them, although some were no ot relapses, the initial infection having been contracted in our tropical possessions. Regulars had 150 and the militia 13 admissions. Eighty-seven cases of bacillary ntery were also reported. A report on entamoebic dysentery in the El Paso dis- has been published by Maj. Craig, Department Laboratory No. 2.

mp diarrhea.—Camp diarrhea prevailed among nearly all of the militia troops tly after arrival at border stations, but subsided quickly as the men became ad- ed to the changed environment. The most common cause was fermentative dis- ance resulting from improper preparation and use of the ration, but in some in- ces the exciting irritant was probably alkaline drinking water, highly impregnated certain mineral salts to which many men were unaccustomed.

ulmonary tuberculosis.—The Regulars, with 139 cases (3.41 per 1,000), did not ed the rate for the whole Army for 1915. The militia had a much lower rate (1.25 1,000) or 96 cases.

ookworm.—The First Alabama Cavalry and the First Mississippi Infantry, at Camp on, showed during January, February, and March, such large sick rates compared troops from Northern States and with the Regular regiments in camp, that sus- on of some underlying cause of a general nature weakening the average resistance ese men to disease was aroused. No admission for the clinical symptoms of unci- asis had occurred, but at the instance of the division surgeon, Twelfth Provisional sion, a survey of these troops was made to determine the presence of hookworm, accomplished by Department Laboratory No. 1, with the assistance of regimental ers.

xaminations of samples of feces of 2,692 men were made with following results:

	First Alabama Cavalry.	First Mississippi Infantry.	Fourth Texas Infantry.
gth	1,180	1,172	1,100
ber examined	911	895	898
ent positive ......per cent	54	32	6
num (in company) ......do	13	12	
mum (in company) ......do	78	53	21

ompanies from rural districts showed highest rates. The findings were negligible roops from dry regions of Texas.

he unusually large mortality of the Alabama and Mississippi troops was due to sles and respiratory troubles. Measles patients in whom hookworm was found, ned more liable to complications, lobar and broncho pneumonia, bronchitis, and s media, than others in the approximate ratio of 2 to 1. Measles occurred much e frequently in men affected with hookworm; ratio about 2½ to 1.

he influence of hookworm infection on incidence of measles may possibly be an rect one. Such men are subnormal men, easily tired out and much more apt to up in overheated and tightly closed tents where infection from incipient cases of sles was acquired.

must be stated also that the Alabama Cavalry were of much younger age on an rage and that they drilled more incessantly, in a more arduous form of exercise. eport of Maj. Siler in detail of this survey has been forwarded for publication.

he patients found to harbor hookworm were properly treated for the disease before ving camp for their home stations. That all troops from hookworm-infested sec- s of the United States should be surveyed at mobilization camps and cured is the phatic lesson of this survey.

enereal.—Taking syphilis, chancroids, and gonorrhea together, the Regulars had 7 admissions or 140 per 1,000, and the militia 3,394 or 44 per 1,000. The great erence in these figures in favor of the State troops is due to a greater moral restraint he militia, limited access to prostitutes by reason of large size of their camps and part to failure of medical officers to detect and record many cases as required by ers. The opposite conditions usually existed among the Regulars.

lcoholism.—The Regulars had 289 cases, ratio 6.87 per 1,000, which is less by half n for the Army in 1915. The militia recorded only 108 cases, with a ratio of 1.40 1,000. This difference is largely caused by circumstances similar to those men- ned under venereal diseases.

CAMP SANITATION.

Inspection.—During the militia mobilization, seven general sanitary inspect were authorized by the War Department for the Southern Department and instruct to report the results of their inspections and recommendations to The Adjutant Gene through department headquarters. Each of these officers covered one or more distric and they were most helpful in securing action to put the large camps for militia tro in a satisfactory state of comfort as rapidly as conditions allowed. Several of th officers also acted as district inspectors, rendering weekly reports to department he quarters.

In other cases, the district surgeon was also sanitary inspector of the district, when the number of troops and separate camps required it, a district sanitary inspec was appointed with no other duty.

Every large militia camp had also one or more camp sanitary inspectors of the regu Medical Corps, whose entire time was given to the work of inspecting and instruct the untrained troops in the care of their camps and personal hygiene.

The excellent service of the camp sanitary inspectors can not be adequately judg from their brief official reports. As friendly advisers of the militia medical offic their services were invaluable and for the most part thoroughly appreciated.

By circular, Department Surgeon's Office, issued July 11, 1916, camp sanit inspectors were directed to render weekly reports under certain specified headi through the general sanitary inspector of the district, as follows:

HEADQUARTERS SOUTHERN DEPARTMENT,
OFFICE OF DEPARTMENT SURGEON,
Fort Sam Houston, Tex., July 11, 191

Circular to each camp sanitary inspector in the Southern Department.

1. You will report immediately on receipt of this circular, and thereafter wee on Saturdays, the sanitary condition of your camp, sending report to this office thro the general sanitary inspector of your district.

2. This report will cover the following subjects and should be as concise as p ticable.

I.

General condition of
- (*a*) Camp site.
- (*b*) Water supply.
- (*c*) Latrines and their care.
- (*d*) Food and its preparation.
- (*e*) Disposal of kitchen and corral waste.

II.

(*a*) Rate per 1,000 on sick report on day preceding report.
(*b*) Prevailing diseases, if any.

III.

(*a*) Rate per 1,000 on sick report from venereal disease on day preceding report
(*b*) Is venereal prophylaxis being carried out?

IV.

(*a*) Any special insanitary condition.
(*b*) Steps taken to remedy same.

V.

(*a*) Progress of vaccination against typhoid and smallpox.
(*b*) A special report will be made to this office when both procedures are comple

VI.

(*a*) Completeness and adequacy of sanitary supplies.
(*b*) Are requisitions being submitted to remedy deficiencies?

VII.

Remarks.

Vhen defects or delinquencies in camp sanitary conditions were reported, remedial on was, whenever possible, taken at once, and when construction was delayed or erial obtained only with difficulty, all humanly possible efforts were made to expedite completion of the camps and to supply the troops. The recommendations of the lical department have almost universally been approved and carried out by comnding officers and quartermasters. It is a pleasure to acknowledge the hearty rit of cooperation which prevailed between the line and staff corps in the Southern partment whenever the welfare of the troops was involved.

'he medical officers of the militia were, as a rule, men of high grade, professionally, l were well acquainted with the principles of military hygiene. Camp sanitation, vever, requires more than expert knowledge on the part of a few trained men. All officers and enlisted men must be taught the necessity for almost meticulous care carrying out many rules which appear to them more or less unimportant, or else the lel camp becomes an impossibility.

'he human factor is all-important; the officer must direct and enforce obedience; soldier's obedience must become habit and when this state of discipline is attained, np sanitation is easy for all.

fuch variation in this personal element was observed in the case of the camps of itia organizations, but even the most inexperienced troops showed great improvent in maintaining sanitary camps. Some of the militia regiments went home for ster out with a record of no deaths from disease and no case of preventable infectious ease. To bring back, with this record, a regiment of robust, healthy men in better rsical condition than when it left home should indeed be a source of just pride to line and medical officers.

'he experience gained in the mobilization of the militia has in every way confirmed belief of medical officers in the almost mathematical correspondence of efficiently ried out sanitation with general efficiency of troops for the use of the Nation. The c report is an excellent index of the value of the organization. Eliminating casualdue to service unavoidable exposure to climate, and fatigue and to certain comn infections of civil life, against which we are as yet almost helpless, the best iments and even the best companies in a regiment will in the long run, show the vest sick rate. Good luck in escaping sickness is far less a factor than intelligence l fidelity in the care of person and environment, and when these qualities are sent and exercised along sanitary lines, it is axiomatic that they will also act in er directions.

'onfidence has also been strengthened in our recognized sanitary procedures, which re, on the whole, stood the test of service on a large scale. It is highly desirable t all structures, appliances, and furniture used for sanitary service in permanent nps or in the fields with the mobile army should be standardized and made a matter regulation; but here again, it is not so much a matter of the instrument, as the way which it is used.

sanitary order (General Orders, No. 13, Headquarters Southern Department, y 10, 1916) was issued very soon after the militia troops began to arrive in number s order covers in simple language all the necessary sanitary procedure, and fixes the ies and responsibility of line and staff officers in carrying out its requirements.

NERAL ORDERS,}
No. 13. }

HEADQUARTERS SOUTHERN DEPARTMENT,
Fort Sam Houston, Tex., July 10, 1916.

'he following sanitary regulations will be strictly complied with at all camps within limits of the Southern Department:

. The maintenance of sound health is necessary to the welfare of the individual l of military efficiency. All members of this command are enjoined to carry out requirements of this order in letter and spirit. Any infractions thereof will unmly be made a subject of disciplinary action.

ll work needful to proper sanitary conditions of this command will be carried out hout delay.

?esponsibility for sanitation.- Battalion commanders are responsible for the police l sanitation within their battalions. They will see that their respective battalion as are ready for sanitary inspection by 9 a. m. daily, and will personally inspect parts of such areas twice daily in company with a medical officer of the regiment. ey will take such measures as are necessary to insure effective sanitation within npanies.

'he adjutant quartermaster, and company commanders are similarly responsible the enforcement of this order within the headquarters company, supply company, l machine gun company.

Sanitary function of the surgeon.—The surgeon of a regiment is its sanitary offic He will inspect the entire regimental area at least once daily, subsequent to 9 a. m

He will give special attention to the maintenance of thorough camp police, t prompt and effective disposal of refuse, the destruction of flies, and the proper sanit condition of the latrines and bathhouses. He will report at once in writing to t proper battalion commander any defects noted, with proper recommendation as their remedy. If on his next inspection any sanitary defect previously reported up by him is found still to exist, he will at once report the facts in writing to the ca commander.

Camp police.—Proper neatness and police of camp sites at all times is required.

The throwing on the ground of trash, remnants of food, or other refuse is prohibit Dirty water will be disposed of only in the places and manner provided for the same

Destruction of flies.—Flies are great nuisances in camp and spread disease. Ev effort will be made to keep down their numbers and prevent their development.

Any area on which flies are seen to cluster will be burned over at once, there destroying their food and eggs. Fly paper will be hung from the ridges of the kitch tents, and requisition for the same should be made on the camp quartermaster. Ea company will at once make requisition on the camp quartermaster for three flytr and maintain same in operation.

Articles which attract flies will not be allowed to remain exposed.

Drainage.—Tentage and company streets will be ditched so as to effectively ca off all storm water. The vicinity of bathhouses will be so ditched and drained as permit of no accumulation of bath water.

Sunning of bedding and tent areas.—Bedding and equipment will be exposed to sun and wind for at least two hours each fine day. All tentage will be struck or fur for this purpose at least twice a week.

Water supply.—The water supply for every camp should be wholesome for drink purposes without purification.

Troops leaving camp for maneuvers or marches will fill canteens before leaving.

To avoid insanitary puddles about the standpipe, no water will be wasted from kitchen faucets.

All proper economy in the use of water in bathing is enjoined, as the disposal of wa water from bathhouses is very difficult in this soil. Officers will see that as soon as men have finished bathing, the flow of the water from the showers is cut off.

Personal cleanliness.—Every member of this command will bathe at least tw weekly.

Army Regulations require that each man will wash his hands before each m and immediately after visiting the latrine.

All clothing will be maintained in a cleanly condition. It may be washed in bath houses or sent out for laundering.

Foods and messing.—All fresh meat, bread, and vegetables will be inspected b medical officer, as to quality, when issued.

Food will be prepared and served in a cleanly manner. It will habitually be p tected against sun, dust, and flies. Company cooks and mess equipment and kitch areas will be neat and clean at all times.

Individual mess kits will be cleaned at the cook tent immediately after use. Co will maintain a supply of hot water for this purpose.

The keeping in the tents of uneaten portions of rations is strictly prohibited.

All members of this command are warned against patronizing places off the reser tion in which food, ice cream, or drinks are sold which are not free from flies and maintained in a cleanly condition.

No hucksters will be permitted in camp other than for delivery of supplies in g eral messes.

The bringing of melons into camp, from the great difficulty of disposing of me rinds, is prohibited.

Disposal of refuse.—Each company will construct and maintain a company inci rator of the type approved by the camp sanitary inspector. All garbage and ca refuse, other than manure and trash from the picket lines, will be promptly destro therein. No accumulation of refuse will be permitted.

Greasy water from the kitchens will be evaporated in the incinerators. To t end, all proper economy in the use of water in kitchens will be enforced.

Footwear.—Great care will be taken in fitting the men with shoes. The tip of toes should not be less than one-half an inch from the tip of the shoes when the body weight is thrown on the foot being fitted.

A sufficient supply of socks, free from holes, will be maintained by each man.

Soil pollution.—Pollution of the camp area by urination or defecation is stric prohibited.

Any person offending in this respect will be brought to trial without delay.

Picket lines will be kept policed, and manure and trash piled for removal and
posal.

Latrines.—Latrine pits will be kept fly-proof. Lids will be kept closed when seats
not in use. Seats will be scrubbed off once daily. Urine troughs will be flushed
t and swabbed with crude oil once daily. Covers will be lifted off pits and the
ter burned out with hay and crude oil once daily.

Each latrine will be inspected by an enlisted man of the Medical Department
ery two hours between reveille and retreat.

Night urinals.—A urine tub will be placed in each company street at retreat. The
und on which it is placed will be kept marked with lime and the site designated
a lantern at night.

Urine tubs will be removed at reveille, emptied into the latrine, burned out with
y and crude oil, and sunned during the day.

Avoidance of disease infections.—In view of the liability of acquiring infectious
sease, the troops of this command are warned to remain away from uncleanly habita-
ns and persons when off the reservation.

Venereal disease.—Persons consorting with loose women are in great danger of acquir-
venereal disease.

Those who have been exposed to venereal infection are required by War Depart-
ent orders to use the approved measures for cleanliness and prevention of venereal
sease. Those who fail to do this and develop venereal disease will be court-martialed
disobedience of orders.

Facilities for giving and recording prophylactic treatment are maintained at the
gimental infirmary.

Physical examination.—The semimonthly physical inspections of the men, required
War Department orders, will be completed before the 15th of each month and
ain before the 30th day of each month.

A company officer will be present when such examination is made by the medical
icer.

Use of regimental infirmary.—Minor cases only will be treated in the regimental
firmary. All others will be transferred to the base hospital.

Any man who has a fever of 101° will be so transferred without delay.

Prophylactic inoculations.—Inoculations against typhoid fever and vaccination
ainst smallpox will be prosecuted systematically under the prescribed methods
til the command is thoroughly protected against these diseases.

Publication of this order.—This order will be read twice to each organization at
treat, and a copy will be kept posted on the bulletin board of each company.

Water supply.—Water supply of camps has, generally speaking, been ample and
cellent in quality. At the large camps, natural water beyond suspicion was fur-
shed and the use of the Darnall filter, the Lyster bag, or boiled the water used for
inking has prevented water-borne diseases in the smaller camps and on the march.

The camp of the New York division at McAllen suffered from delay in piping water
camp in sufficient quantity for shower baths and laundry work, but the artesian
ter used was of good quality for drinking and cooking.

Torrential rains and unavoidable delay in delivering construction material delayed
e proper sanitary preparation of the camp at McAllen in this and other ways.

During August and September an outbreak of acute diarrhea at Douglas, Ariz.,
as at first attributed to the water supply. The water was found to be pure from
e laboratory standpoint, but impregnated with mineral salts of a purgative nature.
he outbreak, which soon subsided, is to be attributed, in my opinion, to camp
okery, indiscretions in diet, and the laxative nature of the water.

The food of the troops has been uniformly plentiful and good in quality. Its
eparation and service has been from fair to excellent, according to the capacity
d efficiency of cooks and mess management. It is most difficult to build up an
ficient kitchen department in a company of newly raised troops. Capable camp
oks, who can use the ration to advantage and furnish appetizing food under all
nditions in camp and on the march, are treasures not easily found. and it takes
me and experience to form a green man into a military cook. On the whole, the
eparation of the food was much better than might have been expected, and in
any organizations was excellent.

A crying need developed for a standard type of easily portable ice box intended
r use in camps. Makeshifts and locally constructed boxes were found very unsat-
factory and by no means economical. Recommendations for a standard camp
e box have been forwarded to the War Department, approved throughout at depart-
ent headquarters.

Care of kitchen and mess.—The care of the company kitchen and mess calls for
ore continuous inspection and action on the part of officers and men than any other

sanitary routine in camp. The kitchens and mess shelters have been screened agains insects. The great pest of flies, which is universal throughout Texas, has been com bated with traps and poison. The kitchen wastes and the scraps from the mes table have been disposed of satisfactorily in company incinerators whenever the me were held strictly accountable for misuse of the structure. A few men, by carelessl throwing the contents of mess tins on the sides of the incinerator instead of in th fire, may create a nuisance and seriously hamper the fight against flies, notwith standing conscientious efforts on the part of others.

There have been some variations in the structure of incinerators, but no new principles of importance have been evolved.

Stable refuse.— Stable litter and manure has been burned with the aid of oil satisfactorily on a small scale, but on a large scale this is difficult and very costly.

At the great remount depot near Fort Sam Houston the complete destruction manure and the complete prevention of fly breeding is a herculean task. The neighboring farmers will not take the manure as a gift, and thousands of dollars worth valuable fertilizer must be destroyed at considerable expense for its destruction.

Latrines.—Latrine pits covered with Havard boxes and burned out daily with crud oil and straw were in general use. The method of spraying these pits with lampblack and coal oil was widely experimented with and received universal approva It possesses many advantages over the method of daily burning out. It takes les time, is not more costly, and is more efficacious in preventing fly breeding. Absolutely fly-proof pits and boxes are almost impossible to construct and maintain Either from the nature of the ground, the edges of the pits become irregular, or th wooden boxes warp and crack from exposure. The use of the lampblack mixtur deters the entrance of flies even in latrines that are not fly proof, and the metho is now in wide use. To diminish the solid content of the pits, a burning out is advisable at long intervals in order to maintain for a longer time the usefulness of th latrine, but I have no hesitation in recommending the daily spraying instead of th daily burning out as a routine measure.

Shelter.—The troops have been well sheltered in tents, floored and framed, at al large camps. Sheltered latrines, shower baths, kitchen, and mess rooms were als provided. Kitchens and mess shelters were screened. The building and screenin were accomplished with as little delay as difficulty of purchase and delivering material permitted.

Ventilation of tents.—As the cold weather came on, the great importance of ten ventilation became apparent. This is a question which has been rather briefl treated in the textbooks on military hygiene. Reports from Camp Wilson and th mountain region in the western districts of the department have called attention t its very great importance. The incidence of respiratory disease and the occurrenc of pneumonia, as well as the spread of measles and mumps, have been shown to b quite accurately proportionate to the bad ventilation of tents during cold weathe The tendency of soldiers to huddle together around red-hot tent stoves, closing ever inlet for fresh air and every outlet for foul, has proved most difficult to overcom With the framed tents, ventilation from below by fastening a piece of wood (2 by 4 to the outer surface of the wooden wall of the tent on three sides so as to hold th canvas away from the wall at that point, has proved very satisfactory. The ten door provides ventilation on the fourth side. The wooden walls should be mad impervious to fine currents of air so that sleeping men may not be chilled, and th apex of the tent should never be closed entirely by the metal caps furnished. It i quite practicable to modify and so to use these caps as not seriously to interfere wit the egress of foul air and at the same time to protect against rain.

Clothing.—Little complaint of the quality and adequacy of clothing has bee made. There was a shortage of certain sizes in articles of clothing and some dela in supply. Some lots of commercial shoes purchased in open market and sent t the department were clumsy and unsuitable for marching troops. In every cas coming to my notice these defects and shortage in clothes were corrected with th least possible delay.

A general inspection of the feet of the troops in El Paso district was undertaken b direction of the general commanding the district and excellently carried out b Maj. Reno, Medical Corps. Defects were listed and made of record and shoes properl fitted. Such a procedure should be among the very first carried out at trainin and mobilization camps before troops are used for field service.

Lavatory and laundry facilities.—Lavatory facilities in the field are even mor important than in garrison, but are often sadly insufficient. Personal cleanliness the body lies at the root of camp hygiene, and in this climate in summer a daily bod bath is a necessity. At all the permanent camps shower baths were furnished i abundance, and as cold weather came on provision was also made for supplying ho water after more or less vexatious delay in the delivery of material had occurred.

'he question of laundry work for troops in the field is one that, in my opinion, must
solved by the institution of transportable field laundries combined with steam
infection for woolen clothes where necessary. The incidence of typhus fever
ong our troops was and is an ever-impending menace on the Mexican border, as
disease is widely prevalent on the Mexican side. A good and economical scheme
doing regular laundry work for large bodies of troops in the field remains to be
lved and is greatly to be desired.

Vhere typhus fever is to be feared—and if war with Mexico had actually taken
ce, this disease would undoubtedly have been a serious problem for the sanitary
e to cope with—a method whereby large bodies of troops may be bathed, freed
m vermin, and all clothing, cotton and woolen, properly disinfected must be
vised and necessary material kept at hand for prompt installment. A good deal
thought has been given to the subject, but as yet an exact formulation of what
thod is most practicable, efficient, and economical has not been made. For-
nately, the need did not arise for the use of a plant among our troops. At all the
ncipal international crossings on the border where our troops were most concen-
ted and where danger of typhus was greatest, such delousing and sterilizing plants
re constructed and maintained by the Public Health Service, and it was not neces
y for the Army to duplicate the work. Had the troops been called upon to enter
xico in force, a portable plant to be carried on a train or motor truck for removing
min from body and clothing would have become a necessity.

At Columbus, N. Mex., the base of the expeditionary column which was in Mexico
over 10 months, it was necessary to free from vermin many Mexican laborers
ployed upon the roads forming the line of communications. Altogether between
) and 700 were treated. An inexpensive plant in which an individual and his
thing could be effectively handled in 20 minutes was installed and managed by
j. L. L. Hopwood, Medical Corps, the district sanitary inspector.

INSTRUCTION OF SANITARY TROOPS.

3y Memorandum of Instruction for Medical Officers and Sanitary Units, published
headquarters Southern Department August 12, 1916, a systematic scheme of train-
was outlined, which was carried out faithfully as far as circumstances at the differ-
camps permitted. District sanitary inspectors were in charge of this training,
ich contemplated not only the instruction of junior officers and enlisted men by
imental surgeons and commanding officers of ambulance and field-hospital com-
nies, but also conferences, lectures, map problems, and war games.

HEADQUARTERS SOUTHERN DEPARTMENT,
Fort Sam Houston, Tex., August 12, 1916.

Memorandum of instruction for medical officers and sanitary units.

SECTION I.—GENERAL.

. The present mobilization affords a unique opportunity for the training of medical
icers and enlisted sanitary personnel, especially of the Organized Militia and Medi-
Reserve Corps, in the functions of the Medical Department on field service.
Full advantage will be taken of this opportunity, and the following scheme of
truction will be carried out progressively and systematically.

. *Participants in course of training.*—This course of instruction is compulsory for
medical officers of the Organized Militia and for all officers of the Medical Reserve
rps on duty with regiments and sanitary units.

3. Commanding officers of base, camp, and cantonment hospitals will see that
icers of the Medical Reserve Corps on duty with their formations take such part
this course of training as will not interfere with the effective performance of their
fessional duties.

4. Junior medical officers of the Regular Army will take such part of this instruc-
n in addition to that required by Section III as relates to subjects in which, in the
inion of their immediate seniors, their knowledge is deficient.

5. Enlisted sanitary personnel of the Organized Militia on duty with regiments
d sanitary units will take the course of instruction here prescribed.
The enlisted personnel of the Regular Army will take the course of instruction
escribed in Section III and such other parts as district or division commanders may
ect.

. *Direction of medicomilitary instruction.*—District or division commanders will
ign the officers necessary to serve as instructors and designate their duties. They

will require attendance on the course by officers and enlisted men as prescrib herein. They will provide for suitable field exercises, marches, and the solution medicomilitary problems by sanitary units and detachments, and will determi the places, dates, and hours for drills, exercises, conferences, and field problems call for by this order.

7. *Supervision of medicomilitary instruction.*—The district or division sanitary i spector will, under the district or division commander, be responsible for the effecti carrying out of the training prescribed in this order.

He will arrange all details, furnish his commander with the names of officers desir as instructors, make plans for all field work, and provide the necessary problems f solution.

In making his inspections he will give careful attention to the manner in whi the provisions of this order are carried out, and will report to this office, through h commander, regarding the results attained.

8. If troops are organized into divisions, sanitary inspectors of divisions will ta over the function of training officers as assigned to district sanitary inspectors in th order.

9. *Instructors.*—Senior or specially qualified medical officers of the Regular Arm selected officers of other branches of the service, and selected medical officers of th Organized Militia will act as special instructors in the course of training.

10. *Responsibility for training.*—The senior medical officer with each regiment an the commanding officer of each ambulance company and field hospital is direct responsible for the training of his junior officers and enlisted sanitary personnel und him.

SECTION II.—GENERAL TRAINING OF MEDICAL OFFICERS.

11. *Outline for instruction for officers.*—The medicomilitary training of medical of cers will include:

(*a*) Practical work in drilling and instructing the enlisted sanitary personnel in various duties.

(*b*) A course of systematized reading and recitations in publications regulating th medical service.

(*c*) Practical training in the preparation of papers and records.

(*d*) Practical training in applied personal hygiene and camp sanitation.

(*e*) Evening conferences, including lectures, discussions, map problems, and w games.

(*f*) Practical training in medicomilitary field work and sanitary tactics.

(*g*) Familiarization with ambulance companies and field hospitals.

(*h*) Familiarization with camp and base hospitals.

(*i*) Familiarization with hospital trains.

(*j*) Equitation.

(*k*) Marching.

12. *Drill and instruction in first aid.*—To familiarize medical officers with marchin litter, ambulance, and tent-pitching drills, and with first aid drills, every such exe cise by enlisted men will be personally directed by one or more medical officers.

13. *Instruction in regulations, manuals, etc.*—The senior medical officer with ea regiment, ambulance company, and field-hospital company of the Organized Milit will take measures to insure that all medical officers with his detachment or compa are thoroughly informed, as soon as possible, with the provisions of Army Regul tions; general orders and circulars, in so far as they relate to the sanitary servic Field Service Regulations; Manual for the Medical Department, 1916; Manual f Courts-Martial; Drill Regulations; and Service Manual for Sanitary Troops, 1914. M reading and the use of the compass will be practiced until all officers can read ma orient themselves, and take advantage of terrain.

To this end he will prescribe a systematic course of reading, may designate regul hours for this purpose, and will check up progress by oral quizzes at least once week

When he and his officers are properly qualified in this respect, the senior officer w report the fact in writing to the district sanitary inspector, who will verify th knowledge in the course of his inspections.

14. *Instruction in papers and records.*—This is covered for officers in paragraph 35 this memorandum.

15. *Training in sanitary inspection.*—For the purpose of instruction in the natu scope, and methods of sanitary inspection of camps, the district sanitary inspec will detail at least two medical officers of the Organized Militia or Medical Reser Corps, by roster, to accompany him on his daily sanitary rounds as assistants.

These officers under instruction will be expected to detect and record any sanita defects and recommend appropriate remedy in each case. The district sanita inspector will note and mention at the time any omissions or fault and will correct mplete any recommendations of remedy. To this end he will question his assist- ts freely to make sure that defects and their methods of correction are fully under- ood. The written sanitary report for each camp will be prepared for the signature the district sanitary inspector by his assistants.

16. *Familiarization with field-hospital and ambulance companies.*—Medical officers on ty with regiments of the Organized Militia will be attached, by roster, by the dis- ict commander on recommendation of the district sanitary inspector, to field-hospital d ambulance companies for the purpose of familiarizing them with the organiza- on, functions, and administration of these sanitary units. The period of such tachment will ordinarily be not less than five nor more than seven days. hile so attached medical officers under instruction will be directly under the ders of the commanding officer of the sanitary unit to which they are assigned and ill perform such duties as the latter may direct. Ordinarily not more than three edical officers under instruction will be attached to a sanitary unit at any one time.

17. *Familiarization with camp and base hospitals.*—Commanding officers of camp and se hospitals will arrange with district sanitary inspectors for inspection of their spitals by medical officers at convenient dates, and will see that the latter have oper opportunity to inform themselves as to the organization, equipment, and ministrative methods of these institutions.

18. *Familiarization with hospital trains.*—Every medical officer will, at the earliest acticable opportunity, visit a hospital train and thoroughly familiarize himself with s equipment and methods.

As far as possible medical officers will visit the hospital train in groups to facilitate e work of description and explanation by the personnel of the latter.

19. *Equitation.*—Every medical officer not versed in horsemanship will be required ride not less than one and one-half hours daily until properly qualified. When acticable, such medical officers will ride in groups under direction of a com- etent instructor.

Senior medical officers with regiments and sanitary units will take measures to see at this requirement is strictly carried out.

20. *Marches.*—For practice in marching as many officers as practicable will accom- any their sanitary detachments or units on the marches required of the latter. In is connection, they will give special attention to the fitting of shoes and the care of e feet.

CONFERENCES.

21. *General scheme.*—There will be not less than two evening conferences for all medi- l officers weekly. Each conference should include three parts, as follows:

(*a*) A lecture by medical or other officers on a prescribed subject, to last 45 minutes.

(*b*) A period for the general asking of questions and discussion of doubtful points, last 15 minutes.

(*c*) The solution of one or more map problems or the playing of a war game on a rge-scale map, illustrating various phases of general and sanitary tactics.

22. *Lectures.*—The following lectures, of 45 minutes duration each, will be given at nferences by selected medical officers:

(1) The organization and function of the Medical Department for war.

(2) The status of medical officers and the relation of the Medical Department to the st of the Army.

(3) The sanitary administration of camps.

(4) Field Service Regulations, in so far as they relate to the Medical Department.

(5) The Manual for the Medical Department, 1916, in its relation to field service.

(6) Customs of the service.

(7) The mechanism and methods of evacuating the disabled in war.

(8) The nature, purposes, and functions of the formations of the Medical Depart- ent for the relief of the disabled in war.

(9) The methods of the Medical Department in securing its equipment and sup- lies and in replenishing the same in the field.

(10) The organization, function, and management of base and general hospitals.

(11) The organization, function, and methods of the American Red Cross for war.

(12) Such other lectures on military and medicomilitary subjects as may be desir- ble will be given as opportunity presents.

23. *Discussions.*—These will be had on any subject of practical general importance n which information or inquiry is desired by persons in attendance at the conference.

This period of general discussion will ordinarily be limited to not exceeding 20 inutes, in order that the general scheme of instruction at conferences may not be nduly interfered with.

24. *Map problems and war games.*—At least one map problem or a war game, illustrating various phases of general and sanitary tactics, will be played at each conferenc by designated officers.

Maps of Fort Leavenworth and vicinity or Gettysburg, of 3-inch (or larger) scale t the mile, with the necessary markers, will be used. The necessary material for thi purpose will be provided by district commanders. The latter may also assign lin officers to assist the district sanitary inspectors in the preparation of these problem and the management of war games.

Map problems and war games will be progressive from the battalion through th reenforced brigades and including the division and will be arranged so as to emphasiz the use of sanitary detachments and sanitary units as much as possible.

25. *Attendance at conferences.*—This is compulsory for all medical officers of th Organized Militia, officers of the Medical Reserve Corps, and officers of the Medica Corps of less than 10 years' service, unless specifically excused by their superiors b reason of duty.

Officers of other branches of the service are invited to be present at conferences an take advantage of and participate in the proceedings.

SECTION III.—PRACTICAL FIELD EXERCISES.

26. The field exercises prescribed under this section are required alike of medica officers and enlisted sanitary personnel on duty with regiments and sanitary units c the Regular Army and Organized Militia.

As far as practicable Medical Reserve Corps officers and officers of the Medica Department of the Army of all grades will be in attendance.

27. *Field problems.*—There will be a number of sanitary field problems carried ou by the sanitary personnel appropriate in general nature to the sanitary detachment or units whose functions are to be demonstrated. These problens should be progressively increased in magnitude and number of units concerned. They shoul include dispositions on the march, in positions in readiness, in the attack, in th defense, and in the rencounter.

A sufficient number of printed copies of the situations to be solved will be distributed, so that proper information of the objects to be attained may be had.

28. *Conjoint problems.*—When regiments solve problems the sanitary detachmen of each will play its proper part in relation to the combatant troops to which it belongs

District commanders will require that in large problems ambulance companies an field hospitals shall participate.

These conjoint problems will be solved in two stages:

The first stage, in which the tactical situation is the dominating factor and in whic the activities of the troops are accompanied or followed by the appropriate sanitar dispositions.

The second stage, in which the tactical situation has been solved and the arrangements for the disposition of the wounded become the predominant factor.

Commanding officers of the combatant troops engaged will make such dispositio of these troops as will enable the sanitary units to carry out the second stage of thes exercises.

29. *Night problems.*—In modern war most of the work of first aid and evacuatio of the wounded can only be done under cover of darkness. A sanitary problem wi therefore be solved at night, in the dark of the moon, at least once a month. Thi problem will be of sufficient magnitude to require the use of at least one ambulanc company and field hospital company.

An appropriate number of soldiers, without arms, should be designated and tagge as wounded and distributed over a mapped terrain under conditions approximatin those of war.

The problem should include the making of contact by the sanitary units with th wounded, the transmission of orders, the searching out of wounded, appropriate fir aid, and the actual transportation of the wounded to dressing stations, and thence t the field hospitals.

30. *Attendance as observers.*—When parcticable medical officers and enlisted san tary personnel not engaged in other urgent duties will be in attendance on field exe cises as observers.

Measures will be taken to inform them of the nature, purposes, and phases of th field exercises, so that they may gain the greatest benefit from their observation.

SECTION IV.—TRAINING OF ENLISTED SANITARY PERSONNEL.

31. Enlisted sanitary personnel will be given not less than five hours' instruction ily. On Saturdays, beside the required formal inspection, two hours' instruction ill be given. Sunday will be observed as a day of rest.

This instruction will be imparted:

(a) By reading and recitations in the Soldier's Handbook, Army Regulations, anual for the Medical Department, Drill Regulations and Service Manual for Sani-ry Troops, and Mason's Handbook for the Hospital Corps.

(b) By drills and demonstrations.

(c) By participation in practice marches and maneuvers.

32. *Subjects for instruction.*—Instruction under class (a) will include: (1) Disci-ine; (2) duties of the soldier; (3) bearer and ambulance drill; (4) first aid, including andaging, splinting, and the treatment of common emergencies; (5) personal hygiene id the elements of camp sanitation; (6) anatomy andphysiology; (7) nursing; (8) ganization and operation of the sanitary service in the field.

Men qualified in one or more subjects, on being so certified by the senior medical ficer in writing, may be excused from further instruction in these subjects. (b) The aining by drills and demonstrations will include foot and litter drill; use of first-aid acket; use of individual equipment of the Hospital Corps soldier; treatment of ounds and fractures; treatment of common emergencies; transportation of the isabled; pitching and striking tentage; packing and unpacking equipment and the se of the articles thereof; the care of property; driving; equitation and the care of nimals; harness and vehicles. (c) Instruction by practice marches and maneuvers. his subject is covered by Section III of this order.

INSTRUCTION IN OTHER SUBJECTS.

33. *Setting-up exercise.*—Sanitary personnel will be given at least 10 minutes set-ng-up exercise daily.

34. *Practice marches.*—Sanitary personnel of regiments and ambulance companies nd field hospital companies will make a practice march of not less than four days' uration and not less than 40 miles in length at least once a month. During this ractice march, daily sanitary maneuvers will be held.

35. *Instruction in paper work.*—For the purpose of insuring the proper preparation nd maintenance of the required papers and records, a properly qualified noncom-issioned officer of the Medical Department will give each sanitary detachment and rganization of the Organized Militia one day of instruction monthly. All noncom-issioned officers and such privates as may be designated will report for this instruc-ion. So far as practicable, medical officers will be in attendance at the time of uch instruction and secure its benefits.

36. *Practical instruction in hospital work.*—Commanding officers of base, camp, and antonment hospitals will arrange for the attachment to their hospitals, as super-umeraries, for practical instruction in the care of the disabled, of enlisted men of the anitary service not experienced in this respect, from troops in their vicinity. Such umbers should be so attached from time to time as can be given instruction without letriment to hospital purposes.

The surgeons of regiments and the commanding officers of field hospital companies nd ambulance companies will submit lists to district commanders, showing the ames and rank of enlisted men of their commands who need to receive such practical raining.

District commanders will authorize the attachment to hospitals, for the above urpose, of such number of enlisted men whose names appear on the above lists as he interests of the service may require.

The period of attachment to hospitals for purposes of instruction should not be less than two weeks. From the necessity of giving some degree of training to as large a number as possible in a brief period, it should not exceed three weeks.

Enlisted men attached to hospitals for the above purpose will ordinarily be quartered and subsisted therein, but will be mustered with their proper organization.

Commanding officers of hospitals will systematize the course of training for enlisted men attached thereto, to the end that they may receive as much instruction as possible in the care of the sick and the treatment of injury.

37. *Instruction with field hospitals and ambulance companies.*—The provisions for this subject covered in Section II, paragraph 16, will apply also to enlisted sanitary personnel. One noncommissioned officer and two selected privates from each regiment will be so attached to field hospital and ambulance companies. The necessary arrangements will be made for their subsistence and quarters with the sanitary unit to which they are attached.

38. *Instruction as cooks.*—For the purpose of instruction in preparing the ration selected men will be assigned by roster as assistants to the cooks of their organizations for periods of not less than 7 nor more than 10 days.

39. *Instruction as chauffeurs.*—In ambulance companies and field hospital companies which are provided with motor ambulances or motor trucks, selected sober and reliable privates and privates first class, to the extent of 50 per cent of the enlisted strength of each such organization, will be given systematized instruction in the operation and care of motor cars.

SECTION V.—SANITARY INSTRUCTION OF COMBATANT TROOPS.

40. This will include (*a*) lectures and demonstrations to militia line officers; (*b* lectures to militia enlisted men.

41. *Instruction of line officers.*—Not less than six lectures on camp hygiene and disease prevention under present and possible conditions, and two demonstrations and lectures on the use of the first-aid packet, will be given to all line officers within one month after receipt of this memorandum.

Lectures on hygiene and sanitation will include the disposal of excreta and refuse camp police; the care and preparation of food; cleanliness of person, clothing, and bedding; the destruction of insect pests; the prevention of infectious diseases, including typhus fever.

Lectures and demonstrations on first aid will include wound infections, the use of the first-aid packet, bandaging, the improvisation of splints, the improvised transportation of wounded.

42. *Instruction of enlisted men.*—Not less than three lectures will be given al enlisted men, without delay, on personal hygiene, the elements of camp sanitation and the prevention of the commoner camp diseases, including venereal diseases acoholism, typhus fever, etc.

The senior medical officer with each organization will provide for this instruction.

It was soon discovered that instruction was most imperatively needed in preparation of papers and record, so that the efforts of sanitary inspectors were chiefly directed to this end.

Practical experience in marching and maneuvers throughout the department was gained by nearly all the regiments.

An excellent series of map problems and maneuvers for sanitary troops was planned by Col. E. L. Munson, division surgeon, Twelfth Provisional Division, and carried out most successfully at Leon Springs, November 18 to 29, inclusive. The division commander took an active interest in the plan and furnished a battalion of Infantry and another of Signal Corps to cooperate in the work. A report on the maneuvers has been rendered by Col. Munson.

CONSTRUCTION OF HOSPITALS.

For the treatment of the sick of the large force in the Southern Department, it was found necessary to construct as rapidly as possible fixed camp hospitals, in which al classes of sick and injured could receive final treatment under conditions as favorable as those existing in modern civil hospitals throughout the country.

The two existing base hospitals at Fort Sam Houston, Tex, and Fort Bliss, Tex. of about 200 beds each, were enlarged by the addition of wooden pavilion wards and increased to the capacity of 750 and 900 patients, respectively.

Hospitals ranging in capacity from 100 to 500 beds were erected at Brownsville Llano Grande, McAllen, Laredo, Eagle Pass, Fort Clark, Del Rio, and Marfa, all in Texas; at Deming, N. Mex., and at Douglas and Nogales, Ariz.

A cantonment hospital partly under canvas existed at Columbus, N. Mex., at the beginning of the mobilization.

A standard unit building was used, 100 feet long by 20 feet wide having ridge ventilation and 8-foot porches on all sides. The buildings were screened from insects lighted by electricity, and supplied with running water. As winter came on, the buildings were weather-proofed against the cold and heating arrangements by stoves installed.

The equipment of the hospital was on hand before the buildings were ready to receive patients. It comprised all the standard furniture, instruments and supplies of regular post hospitals in the Army, including perfectly equipped operating rooms and X-ray machines. Female nurses were on duty at all but a few of the smallest hospitals.

SERVICE OF HOSPITALS.

eports from all the base and camp hospitals accompany this report and give details he service of each. It is a record of good work and excellent results of which the ıy has no cause to be ashamed.

he surgery was uniformly efficient and all classes of major operations were per- ıed.

LABORATORIES.

he service of the three department laboratories is set forth at length in the accom- ying reports from these institutions. The routine work is enormous, but much cial research has been made, most of which has been the subject of special reports is alluded to elsewhere in this communication.

t is believed that important addition to our knowledge of paratyphoid fever, umonia, cerebrospinal meningitis, and other infections has been gained.

mong the important points to be decided in raising the contemplated great Army he United States, upon which the work of the laboratories in this department have wn much light, are:

. The necessity for compulsory vaccination against paratyphoid fever of all troops.

. The necessity for special equipment and construction of laboratories at large ld weather" camps for the differentiation of pneumonia microbes, so that special m therapy may save the lives of many of the sick.

. The detection and cure of hookworm at mobilization camps of all troops from cted sections of the United States.

. The handling of carriers of disease, who are themselves physically able to do duty.

SUPPLIES.

Vith the exception of field dental equipments, which were not purchasable in the ited States on time, and some articles of combat equipment which were equally btainable, all classes of medical supplies were on hand and promptly furnished on uisition.

he medical supply depots at San Antonio, Tex., and El Paso, Tex., were excel- tly managed to the satisfaction of the authorities.

MEDICAL DEPARTMENT CLERKS.

pecial mention is due to the faithful and efficient services of the clerical force in office and especially to the chief clerk, Mr. John W. Cleave.

his force of classified clerks, Medical Department at large, temporary clerks engaged the emergency caused by the mobilization of last summer, and of noncommissioned cers and privates of the Medical Department, has been most efficient in keeping east of the large mass of work handled by the office of the department surgeon, l in meeting emergencies.

he status of clerks of the Medical Department should, in all justice, be equalized h that of field clerks of The Adjutant General's Office and the Quartermaster Corps. ng and faithful service at home and abroad should meet at least with no less reward n has been given to the same class of service in other staff departments.

The Division Surgeon, Eleventh Provisional Division, reports as llows:

he Eleventh Provisional Division consists principally of the National Guard anizations from the States of Ohio and Michigan, with a few scattering organiza- ns from other States. The only representatives of the Regular Army are a few staff cers at division headquarters and the inspector instructors on duty with the different giments. Although two regiments of Infantry from Michigan have been in the cinity of El Paso since July, the division proper was not organized until about ptember 10. A large proportion of the personnel comprising the organizations are n possessing limited experience in camp life; in fact, it is safe to say the majority ver experienced conditions of this kind before. After the call of the President majority of the organizations were greatly depleted owing to the mustering out of ny of the older members due to physical and other disqualifications. As a result ranks were filled by untrained men. The general morale of the personnel com- ising the division is very good, the majority of its officers and men being of high liber.

The general criticism to be offered, however, is the inexperience and lack of intere displayed by many of the organization commanders relative to sanitary matters ar conditions concerning the health of their men. Although rigid sanitary rules ar regulations have been published, but few of the organization commanders ha familiarized themselves with them and endeavored to carry out their provisions.

CAMP SITES.

This division occupies two separate and distinct camp sites, entirely different as soil conditions and surroundings. The main body is camped on a rocky plate about 3 miles north of the city of El Paso. The site is bounded on the west by t Franklin range of mountains, on the east by the Fort Bliss mesa. The soil is rock barren, and void of vegetation. The territory is laid out into city lots and its occ pancy by the military was with the understanding that no latrines or pits would dug except in the streets. As a result some of the camps are somewhat congeste In many places the camp is built on solid caleche or rock and the placing of tent pe is almost impossible. All latrines and pits of any kind had to be blasted.

The camp site of the Michigan regiments is of a different nature, being located on low sandy level between the Rio Grande and the irrigation ditch east of the cit While the main body of the division camp is established in a good residential secti of the city, the Michigan camp is surrounded to a large extent by Mexican shacks a questionable houses.

WATER AND FOOD SUPPLY AND DISPOSAL OF WASTES.

The food supplied was satisfactory, both as to quantity and quality; a few co plaints were made relative to some commodities, but on investigation proved to groundless. The water was furnished by the El Paso Water Works and although t quality of the water was satisfactory, many complaints were made from time to ti relative to the diminished supply. This was especially true of the provisional re ment of Field Artillery, which at times has been deprived of water entirely.

MEDICAL PERSONNEL OF THE DIVISION.

The commissioned personnel of this division consists of 14 majors, 26 captains, first lieutenants, 8 dentists, and 3 veterinarians. The large majority of the medic officers in this division are highly educated and successful practitioners in their spective communities. They have appeared interested in the work and anxious learn. They were greatly handicapped in their work due to lack of experience a training in military medical matters. The medical officers from Ohio were furth handicapped by the poor instruction received from a noncommissioned officer of t Medical Department of the Army when at the State camp, who knew nothing abo the work and who was not prepared to act in the capacity of an instructor. As result of this they were compelled to undo much of the work done at their cam This was especially true in making out sick and wounded cards and general recor As a result the first few weeks spent at this camp were very trying and many beca discouraged, which was perfectly justifiable; but by constant work and perseveran on their part they have mastered many of the difficulties and at present the work progressing satisfactorily.

There are 650 enlisted men in the Medical Department. Of this number one priva died of pneumonia, one was transferred to a line organization and four were furlough to the reserve. As a rule the enlisted personnel of the Medical Department consi of a high class of men, many of them being doctors, dentists, lawyers, medical studen etc. These men, like those of the line organizations, lacked instruction. This w especially noticeable of the majority of the noncommissioned officers. Special me tion might be made of the rapid progress of the field hospitals and ambulance co panies. Considering these organizations had never been trained as such and th prior to reaching El Paso the majority of their members had never received traini with animals, too much can not be said of the rapid progress made in rounding o these organizations after their equipment was complete. A sergeant from one of t Regular Cavalry organizations stationed at Fort Bliss was assigned to each compa for 15 days, after the animals had been furnished and the work performed by the was excellent.

ANIMAL AND WHEEL TRANSPORTATION.

he following animal and wheel transportation is assigned to the medical department of this division:

ing horses	234	Wagons	44
bulances	49	Pack animals	30
ft animals	390	Automobiles	1

REQUISITIONS.

inety requisitions were submitted by the medical officers of this division, as ows:

ld hospitals	21	Eighth Ohio Infantry	5
bulance companies	12	Engineers	4
ond Ohio Infantry	5	Cavalry	5
rd Ohio Infantry	5	Field Artillery	5
rth Ohio Infantry	7	Signal Corps	5
h Ohio Infantry	5		
th Ohio Infantry	11		90

s a rule all requisitions were honored expeditiously, and little complaint was rd from medical officers relative to this matter. There has been some difficulty btaining certain supplies, but in no case has the health of the command suffered een impaired. It was impossible to obtain proper dental equipment during the few weeks, but this condition was unavoidable, due to the fact that the dental ply houses could not furnish equipment. At the present time all dental surgeons e their equipment and are doing excellent work.

CLIMATIC CONDITIONS.

he climate might be considered mild, although some exceptionally cold periods e been experienced from time to time; fortunately, however, these cold spells e of short duration. As a rule the days are warm and the nights cold. During the few weeks several severe rainstorms were experienced, but of late there has been le rainfall. Wind and sand storms are common, during which camp life is remely disagreeable.

PREVAILING SICKNESS.

he prevailing sickness in the division appeared to be mostly of a trivial nature, h as slight colds and catarrhal diseases of the respiratory system.

VENEREAL DISEASES.

he venereal rate in the division was very low. This condition was believed due the high standard of morale of the men and to the immediate establishment of phylactic stations throughout the division. Immediately upon the arrival of anizations, organization commanders and the medical officers were assembled the division surgeon and told of the venereal conditions in and around El Paso, l instructed to notify the men at the first formation of such conditions. The dical officers were directed to immediately establish prophylactic stations. Veeal inspections are made bimonthly, and report is made to the office of the division geon.

DEATHS.

here have een 24 deaths in the division- 15 caused by pneumonia, 1 tubercuis, 1 diabetes, 1 drowned, 1 anemic dysentery, 1 run over y vehicle, and 4 gunshot unds (2 accidental, 1 suicidal, and 1 homicidal).

HEADQUARTERS, TWELFTH PROVISIONAL DIVISION, CAMP WILSON, TEX.

CAMP SANITATION.

This camp, situated to the northeast on the outskirts of the city of San Antoni has the advantages of good natural drainage for surface water, good climatic conditior accessibility for supplies, environs free from nuisances, and an excellent and amp water supply.

The soil of the camp site is mixed gravel and gumbo clay, which in wet weath makes a deep, sticky mud. During the summer of 1916 there was an unusually lar amount of rain. The camp site was at times very hard to keep clean.

Surface water drainage has been facilitated by a system of ditching which serv not only to rid the camp of rain water but also to carry off waste water from the ba houses. This is of great importance, as during hot weather a great quantity of wat is used for bathing and washing clothing.

There is no system of sewerage. It would be difficult to install a sewerage syste for the camp, which would not be objectionable, without great expense. The sewe for the part of the city near the camp are already taxed to their full capacity and c not be used for camp drainage.

There is some question as to the desirability of having such a system for a milita encampment. Its convenience is offset by the fact that troops sent to the encam ment for training should learn how to do without conveniences which it will be i possible for them to have in active service. It is important as part of their traini that they learn sanitary methods for care and disposal of wastes.

Police of camp environs has as a rule been very good. Early in the summer the were a number of small stores, restaurants, and fruit stands near the entrance of t camp which were not well kept. The health authorities of the city of San Antor took the matter in hand. Scavengers removed refuse daily and inspectors from t health department were specially assigned to the district. The results have be good.

The San Antonio police department as well as the health department cooperat with the authorities of the camp. Objectionable characters were not allowed in vicinity. Measures were taken for suppression of prostitution. Soliciting in t vicinity of the camp was prohibited. Plain-clothes men made frequent roun to see that the prohibitions were enforced.

Climatic conditions.—During the summer the heat was at times great. It w seldom over 95°, usually not over 85° in the hottest part of the day. There was neai a "Gulf breeze" in the afternoon. The heat was not great enough to interfere with t proper training of troops. During the months of June, July, and August drills we suspended during the hottest part of the day. None of the men suffered any hardsh or injury on account of the climatic conditions. There were a few cases of heat pr tration, none of a serious character. The number of heat prostrations was no grea than would occur in summer camps in northern States. The summer temperature Illinois was hotter during the summer of 1916 than that of San Antonio.

During the months of November and December there were several northers, whi caused sudden drops in temperature and considerable discomfort. There were cases of bronchitis in the First Mississippi Infantry Regiment reported in one we following exposure in a norther while the regiment was en route from Leon Sprii to Camp Wilson. None of these cases were of a serious nature. The rest of the co mand had no rise in sick rate due to this cause.

Taken throughout the year, the climatic conditions of Camp Wilson are admiral adapted to the requirements for a camp of instruction. There is no prolonged peri during which the troops can not be given field exercises. With reasonable attenti being paid to the climatic conditions, avoidance of strenuous exercises during the h of the day in summer and suitable attention to heating of tents during the col periods in the winter months, men of the command may be expected to maint excellent health.

Food and its preparation.—The food supply for the command has been excelle Articles furnished by the Quartermaster's Department have been of good quali The quantity has been ample. There has been a sale to some of the organizati of meats that were not United States inspected and passed. This matter is n under consideration and suitable action will be taken.

An attempt was made to have these articles purchased through the Quartermaste Department, but as they could be purchased only as "exceptional articles" and method of purchase of articles of this class is too difficult, deliveries are too slow, a the regulations require that the articles so purchased must be accepted regardless the condition of delivery, it was impracticable to buy meats in this way. The me in question include veal, pork, and sausage. They have been purchased from lo

ers. Some of the meats so purchased are of good quality. There is, however,
guaranty of their fitness for consumption unless prepared under United States
ection.

he preparation of food by militia organizations has not been as good as by regular
ps. This is due to lack of experience. It has been made a matter for instruction
in commands which have been a short time in camp great improvement has been
d. Preparation of food improves both as regards handling of the ration in making
meals better balanced, more appetizing, and also as regards economy in use of
ration. In new organizations there is enormous waste of food.

ilk supply.—In many of the kitchens none other than condensed milk is used.
re is some fresh milk sold in the camp.

he condition of dairies was made a matter of investigation. There were no
rs issued on the subject. Recommendation was made that fresh milk be pur-
sed from certain sources which were known to be good.

he milk supply of San Antonio is under a good city inspection. Milk is con-
ally inspected and dairies are scored and the scores published monthly in city
spapers.

nspections were made of soda bottling plants and of the plants of firms which
ished ice cream to the camp exchanges. During the summer months immense
ntities of ice cream were sold in the camp, as well as an immense amount of
led soda. Information was given purchasing officers for post exchanges as to the
s which were preparing these articles under good conditions.

itchen incinerators.—During the first two months—July and August—incinerators
he horseshoe type, rock lined, were used. They were not satisfactory. It was
rly impossible to evaporate in them the waste water from the kitchens.

ncinerators of the horseshoe shape worked well at the camps at Leon Springs and
Braunfels, but were not a success at Camp Wilson. At the Leon Springs and New
unfels camps the soil was rocky. There was not the clay which is found at Camp
son. Large stones, which retained heat and aided in evaporation of liquids, were
ly obtained. At Camp Wilson it was difficult to find enough large stones to line
inside of the incinerators. Small stones did not hold the heat. The soil was
rly impervious. There was little seepage of liquid through it. The clay on the
s of the incinerators became mixed with liquid kitchen waste and was saturated
some distance from the fires. It was kept warm by the fire and became an ideal
e for hatching and breeding flies. It was possible to dig maggots from the earth
he sides of nearly every such incinerator. The rock-lined incinerators work well
ocky or in sandy soil, but are not a success in a soil of gumbo clay.

rick incinerators with evaporating pans were installed at each company kitchen
ugust. They were much easier to care for than were the old ones. There was less
culty from flies after their installation.

ncinerators of this type are now in use. They can be used effectively for disposal
kitchen waste. They are extravagant in fuel consumption; with moderate cost
ld be covered over, closed in, and have garbage chambers made. The cost of
h improvement would be many times saved in lessened fuel consumption. They
not good incinerators, but are better than those formerly used.

ly destruction.—During the summer months there were quite a number of flies
ut the latrines and kitchens. Vigorous measures were taken to rid the camp of
ir presence. The sources were from breeding places outside and inside the camp.
t Remount Station No. 2, 1 mile distant from the camp, there were kept on an
rage from 4,000 to 6,000 horses and mules. This station was not well policed at
and there were flies by the millions. The prevailing winds were from the direc-
of the remount station. Flies drifted into the camp in swarms. There were
flies bred in the camp in the incinerators and on the ground about, when the
k-lined type of incinerators was used. There were some flies bred in the latrines,
ugh not in great numbers.

t was difficult at first to teach the more inexperienced men the necessity for scru-
ous cleanliness of the kitchens and surroundings. They learned it after a time.
wever, as scrupulous cleanliness means a great deal of work, there was always
ural inertia to be overcome in order to maintain good sanitary camp conditions.

atrines were burned out daily and during some periods twice daily. Hot fires
e needed in order to destroy all fly eggs and maggots in the latrines. Several of
latrine buildings were burned down during the process.

here were over 600 flytraps in use throughout the camp. Kitchens were fre-
ntly inspected and attention given to seeing that the traps were used and kept
perly baited. Thousands of sheets of fly paper were used. Fly-breeding areas
e burned over with hay and crude oil. Fly poison was supplied and used in the
hens.

At Remount Station No. 2 there was an antifly campaign. A detachment of Medi
Department enlisted men under charge of a medical officer was put at work. Civili
employees were put at work cleaning up the paddocks. There were 30 men employ
at this work. Several thousand sheets of fly paper were placed about the buildin
Five hundred plates of bread soaked with fly poison were placed about the stab
and kitchens. The poison, 4 per cent formalin with sweetened water and condens
milk, was very effective. Ten gallons of dead flies were gathered from a small a
where they were thickest. Another effective method for fly destruction is a spray
carbolic or cresol solution used with a tree sprayer. It is used in the evenings wh
flies have settled on screens and walls inside of the buildings. By use of these me
ods at the remount station the number of flies was quickly much reduced. T
number of flies at Camp Wilson was immediately reduced, as there were fewer blo
into the camp.

Latrines and their care.—The latrines used for the camp were pits 14 feet long b
feet deep. They were covered by boxes of a modified Harvard type. Latrine hou
were built about them. The latrines were burned out once daily with straw or
and crude oil. In hot weather during the summer it was found necessary to bu
them out twice daily. Each latrine house was provided with a urinal trough
galvanized iron. This trough was connected with a pipe with the latrine pit. T
inside of the troughs were painted with crude oil, inside, once or twice daily.

There was considerable difficulty experienced in the care of latrines. The boxes u
were not of a good pattern. They were too heavy and clumsy. They could
easily be shifted inside of the houses to allow for burning out the pits. They w
constantly breaking. The sides of the pits were frequently caving in. It was di
cult to keep them fly proof. A great deal of labor was required for their care, ab
50 working hours per day per regiment. Though it was possible by this method
keep the latrines fairly free from flies, the method of latrine management was
satisfactory.

The method of spraying latrines daily with a mixture of coal oil and lamp bl
was used for care of latrines at the camp at New Braunfels (Landa Park), Te
during the latter part of August. It gave better results and was much easier t
the burning method. There were fewer flies about the latrines, the pits were m
easily kept fly proof. When coal oil and lampblack are used, the mixture of 1 pou
of lampblack to 4 gallons of oil is sprayed through the openings into the latrine
The quantity is 1 gallon of the mixture for each pit per day. The boxes remain
place. A film of oil is deposited over all material in the pit, which kills any fly e
that may be deposited. In case the work has been done in a perfunctory mann
not enough of the mixture sprayed into the pits, so that flies are breeding, the
can be burned from time to time. It will be found that there will be enough
and paper in the pit to make a hot fire if the paper is lighted. The box must
removed before the burning is attempted, otherwise it will be burned up. A co
bination of the spraying method with burning once weekly will reduce the amou
of material in the latrine, prolong its use, and at the same time kill any fly eggs
larvæ which may be present. No method for care of latrines is perfect. The spr
ing method has to be used in order to be effective. The work must be done un
responsible supervision otherwise, particularly with inexperienced troops, it
be neglected or not done at all. Treatment of latrines by spraying seems to be
best method yet devised. If carried out with any reasonable care it gives mu
better results and entails much less work than the burning process. There is li
difference in cost between the two methods. Coal oil costs, in this district, bu
fraction of a cent more a gallon than crude oil. There is less waste when the oi
used in sprays. The utility of the lampblack as a component of the mixture is dou
ful. It blackens the inside of the pit and box, making less light in the pit. It m
have some value as a deodorant and perhaps in some way inhibits fly breeding.
cost of lampblack is about 15 cents per pound. Bone black, costing but 8 cents
pound, has been used as a substitute. It is not as good as the lampblack, as it d
not mix well with the oil. It settles to the bottom of the container. If the bo
are fly and light tight it would seem that lampblack could be dispensed with
results practically as good be obtained by spraying with oil alone.

Types of sprays used.—The sprayer which has given the best satisfaction is
"Brown compressed air sprayer," manufactured in Rochester, N. Y. Sprays of
type were of 3-gallon capacity. They are the kind used for tree or brush sprayi
Each sprayer has an air pump for compression. There is a 3-foot rubber pipe w
nozzle. The sprayer is of about the size and has much the appearance of the
extinguishers in common use. There is a webbing strap by means of which the ap
ratus can be slung over the shoulder of the operator. Sprayers of the size mentio
are best, as they can be operated by one man. They are quite simple; less ap

out of order than larger tree sprayers. As more of them are furnished, in case is out of order, others can be used. Two or more men can be spraying different ines at the same time, thus shortening the time for work. Smaller hand sprays e used, but were found to be too weak and to make the process too tedious.

'he Brown sprayers are made in two grades, of galvanized iron and of copper. en oil is used, the galvanized-iron kind is as good as the more expensive copper. difference in cost is $4 for the iron and $7.50 for the copper. The rubber hose l have to be renewed at intervals, as it is rotted by the oil. In case sprayers are to be had, garden sprinkling pots may be used. They are not as satisfactory in t they do not give a fine enough spray.

'he sprays are now in use in the Third Illinois Infantry Regiment. Requisitions e been made for enough sprayers to supply the division in camp at Camp Wilson for use at the subcamps at New Braunfels and Leon Springs.

athhouses.—Bathhouses with shower baths were built for each battalion through the camp, both for use of officers and enlisted men. Each enlisted men's bathise was provided with a "laundry stand." This was an inclined shelf for scrubbing thing. Along the top of the shelf there is a water pipe provided with several cets. When clothing is being washed, fresh water can be run over the inclined lf as desired.

)ne bathhouse for officers and one for enlisted men of each regiment is provided h a heater for furnishing hot water and for heating the house. Work of installation these heaters was not complete at the close of the year 1916. About one-third of regiments have been supplied. The work had been delayed on account of short in the number of heaters and the necessity for first supplying camps which were lated in colder localities. During the hot weather the shower baths are much d. Later in the season, as the weather becomes cooler, there is less bathing. The n of the command, however, deserve great credit for the care they have taken to intain cleanliness, even under adverse circumstances. Men were bathing and ubbing clothing in cold weather in December where the bathhouses had not been ited and hot water was not supplied.

'hysical improvement of the command. During the period of training the physical idition of men of the command has notably improved. This has been very appar, to all who have had opportunity to see the troops at the time of their arrival and iin a few months later. Under camp conditions, with regular training, good food, l life in the open, men have gained in weight and strength. They have acquired ifidence in their ability to do work which may be required of them. They have ned strength, so that they have been able to march and perform work of which y were incapable.

'he time of training has been short. None of the militia commands have been in np over six months. During this short period of training the benefits of training re been great. Could similar training be given young men over a longer period, ater benefits would be gained. Many of the men at Camp Wilson were of mature irs. For them the benefits were not so great as would have been the case had they eived their military experience during the developmental period of life. The ler men had, many of them, assumed responsibilities at home. Protracted absence m their homes caused anxiety. They were anxious to return and so took less erest in their military duties. It is believed that, while all men will derive benefit m military training in camp, by far the greatest benefit will be given the younger n.

The divisional march to Austin, Tex.—During the period from September 16 to Octo r 2 the Twelfth Provisional Division was on march to Camp Mabry, Austin, Tex., d return. On this march the troops were given a valuable experience and many sons of value were learned by both enlisted men and officers.

The division was accompanied by a complete divisional sanitary train. There were o ambulance companies of Regular and two of militia. There was one field hosal of Regular troops (No. 6 motorized). There were three field hospitals belonging the Organized Militia. The march was made for them, as well as for the regimental dical Department detachments, a period of training which closely approximated iditions in actual warfare. One field hospital was pitched each night and the sick the division were evacuated through it to the base hospital at Fort Sam Houston. e number of cases treated in the field hospitals varied from 16 to 155 per day.

The experience of the march brought out the advantage of the motorized field spital over the hospital which has but mule transportation. The advantage conts not only in its greater mobility but also in the superiority of the service which n be rendered by its personnel. Men who have been transported on the march d are relieved from the work incident to the care of animals have energy to devote work of the sanitary organization to which they may be assigned which is manifest in the higher grade of work done by the motorized organization. While excell work was done by the men of the mule-drawn field hospitals, the efficiency was l as compared with the motorized hospital. This was aside from any difference training between the various organizations. It was a natural result of increased cap ity by reason of the fact that the men were not exhausted by a day's march bef commencing to do their special work with the sanitary units.

A great deal of difficulty was experienced in making out the required records sick and wounded. Card forms No. 52 were used and transfer cards were made for cases sent to the base hospital. In some instances men engaged on the cleric work were at work through the entire night, and in nearly every instance the reco were not correct. This was particularly true of the militia organizations, which w not experienced in clerical work. It was demonstrated that for field work, particula with inexperienced organizations, the clerical work required must be of the v simplest, and that even then correct and complete records can not be expected.

Evacuation of the sick was done by motor ambulances. Three hundred and eigh nine cases were sent to the base hospital from camps along the route. The dista to Austin is 85 miles. Without the motor ambulances evacuation to Fort Sam Houst as a base would have been impossible. There were four motor ambulances us Each of them with good roads was able to do the work which it would have requi 12 mule-drawn ambulances to accomplish. There were two cases of acute app dicitis transferred which would not have reached the base hospital in time for succ ful operation had mule-drawn ambulances been used.

During the march 3.307 per cent of the militia troops were sent to the base hospi Many of the men had disqualifications for which they were discharged on certifica of disability. There appeared a number of venereal cases which had been concea while the men were in camp. The presence of defectives with the command h during the first part of the march a demoralizing effect upon other men of the comma When men who had disabilities fell out of line others who were able to march follow their example. With the elimination of the defectives there was a noticeable impro ment in the rest of the command. This was demonstrable not only in the march ability but also in the spirit which was manifest. The men who remained w more cheerful and confident by reason of being relieved of undesirable compani

The necessity for careful weeding out of troops before muster into service was v plain. Though many had been rejected at the time of muster, it was shown t requirements should be even more strictly maintained, not only on account of saving to the Government in anticipating possible pension claims, but in the be discipline and courage of troops which are sound.

Inspection of camp sites left on the march was made by the division inspector the sanitary inspector. The inspections were very thorough and careful records w made. Irregularities were brought to the attention of commanders. During march there was remarkable improvement shown in care of camps. The areas by some regiments were absolutely free from refuse. Only by the brown patche earth where latrines and kitchens fires had been covered could it be known th regiment had been camped on the ground. It was impressed upon all inexperien troops that the health of other commands which might occupy their camping grou or the health of their own command on returning to the old camp sites wo depend upon the way in which camps were left. Men who had contracted slove camp habits were cured.

The experience gained by the Medical Department personnel was particul valuable. Many of the officers and men had never before realized exactly what their function in the Military Establishment. To such persons the realization they had an important part to play in the Military Establishment was most benefic The necessity for the divisional sanitary train was made apparent to many who not known its use. As a result of the experience gained there will probably be sev field hospitals and ambulance companies organized.

The division surgeon and sanitary inspector, Nogales distr reports as follows:

SICKNESS AND MORTALITY.

The first part of this period presented nothing unusual, the average sickness b noted. On the departure of the California Infantry Brigade, the last of October, the arrival of the Alabama Infantry Brigade, field hospital, ambulance company, signal corps company, the sickness began a steady increase. This increase at was due to the large number of venereal diseases that these troops brought with t to this station. These cases were all rounded up and put into the hospital, s 43 being put in at once.

)n arrival of these troops the field instruction immediately began, consisting of ictice marches, etc. The later part of November the Fourth Infantry, and early December the Second Infantry, made practice marches to Tucson and return. ite a marked rise in the sickness began to be noticed at this time, due to respiratory eases (influenza in its different manifestations).

The Idaho Infantry suffered in this respect as well as the Alabama troops. As a ans of reducing the number of cases of influenza, the following recommendations re made:

'1. On December 6 there were in the base hospital 189 cases of respiratory diseases—nitis, none; tonsillitis, 15; bronchitis, 10; pneumonia, 10; influenza, 73; pleurisy, 1. e Alabama Infantry, which had just completed a march to Tucson and return, had der treatment in their camp 86 cases and the Second Idaho 23 cases. And this es not include many cases who have been prescribed for but not taken on sick report.

'2. Investigating the cause, all regimental surgeons express the opinion that most the trouble, if not all, is due to the open mess sheds where the men are exposed to e cold winds of the early mornings and nights.

"3. It should be borne in mind that the temperature in and around Nogales varies much as 50° or more from noonday to early morning. The nights and early morngs are very cold.

"4. The district surgeon and regimental surgeons are of the opinion that the troops ve not sufficient shelter for this altitude and climate, and therefore recommend at steps be taken immediately to close all mess sheds and to floor and wall all nts.

"5. Furthermore, it is recommended that maneuvers and marches should be odified and conducted in such manner as will permit the men to occupy their own nts each night, certainly until the epidemic of respiratory diseases is over.

"6. As an example of the harmfulness of marches at this time of the year in this itude, the sick report of the Fourth Alabama might be considered. During the onth of November, in this regiment, 9 cases of respiratory diseases were taken on k report. From December 1 to date there have been 125 such cases, and it is lieved that these cases resulted directly from the exposure to the cold nights and rly mornings on their return march from Tucson."

Still the epidemic continued, and while the number of cases decreased somewhat e severity of the cases increased, resulting in pneumonia.

During December there were admitted to the base hospital 47 pneumonias, distriuted as follows: First Alabama Infantry, 27; Second Alabama Infantry, 6; Fourth abama Infantry, 10; First Alabama Ambulance Company, 1; Second Idaho Inntry, 1; First California Field Artillery, 1; Utah Cavalry, 1.

During December there were 4 deaths from pneumonia, a mortality of 9.7 per cent.

Various causes have been given by different medical officers as to the comparatively rge number of pneumonias: Unacclimated condition of the Alabama troops; reduced tality of these troops, especially those coming from Mobile and along the Gulf coast, eir vitality having been reduced by malaria and hookworm diseases, the latter sease having been found in the Alabama troops; carelessness in the observance of e rules of personal hygiene; exposure on practice marches and on guard; contact posure in picture shows; contact exposure in the tents; and numerous other causes, hich leads to the conclusion that they have all been factors. And on this assumption ery effort has been made under the circumstances to reduce these pneumonias by tacking every and all causes.

The following recommendations were made, and while some of them were made in nuary, 1917, they relate to conditions in 1916, and therefore it is thought proper to clude them:

"JANUARY 5, 1917.

"As a means of reducing the epidemic of pneumonia and influenza, which has become uite serious, it is recommended that sufficient tents be furnished the Alabama troops give a tent to each four men. This will reduce the liability of contact infection, e principal manner in which the infection is transmitted. Furthermore, each man ould be required to use his own drinking cup, wash basin, and towel. Expectoration and around the tents should be absolutely prohibited. This plan was carried out ith great success by the present Surgeon General in eliminating pneumonia from e laborers on the Panama Canal and the miners in South Africa."

"JANUARY 6, 1917.

"1. The pneumonia situation has reached such a condition of seriousness that it is ought proper to recommend every procedure that will have a tendency to reduce it.

"2. The histories of many of the cases show that they experienced a chilling of their odies, which was soon followed by pain in the side and sickness. Many of these men go to town in the early afternoon with only a sweater, which, after all, is a very po garment for warmth, and going home late at night probably in a jitney they becor chilled. Furthermore, in going to town they usually land in the picture show, whe they inhale an atmosphere impregnated with pneumonia, influenza, and probab cerebrospinal meningitis germs.

“3. Therefore it is recommended that the Alabama troops be not allowed to be abse from their camps after dark, and that all troops be prohibited from attending pictu shows or other places of assemblages until this epidemic of influenza, pneumonia, a measles is over.”

Measles.—Measles, also, has caused a marked morbidity. This disease began assume epidemic form about December 12. By December 31 the epidemic reach its height, 157 cases being in hospital for that cause alone. The First Alabama Infant gave the largest number by far. Cases were isolated for a time in the base hospit and when this hospital began to reach its capacity the Alabama Field Hospital w opened December 17, for the care of measles, mumps, and venereal cases, thus reduci somewhat the pressure at the base hospital.

Cerebrospinal meningitis.—On November 8 a case occurred in the District of Colu bia Signal Corps. Its source could not be determined. It was thought to have be contracted from Mexicans, as the man gave a history of having been in Mexico abo a week before he took sick. In this connection it is of interest to note that on Janua 1, 1917, a case of cerebrospinal fever occurred in Battery D, Sixth Field Artiller This whole battery was examined bacteriologically, with negative findings in eve case, which again leads to the belief that picture shows, where the soldiers come very close contact with a Mexican population that has no medical supervision, is t probable source of this infection.

The Alabama troops gave the largest per cent of sickness. As compared with t Regulars, they gave an average morbidity for December of 8.1 per cent, as against per cent for the Regulars. In the Alabama troops there was quite a difference morbidity and mortality.

It is interesting to note that the ambulance company and the field hospital had small morbidity. This may be due to the fact that these men were better cared f and did no guard duty.

Sanitation.—Sanitation, on the whole, has been excellent throughout the cam The camp sites have been excellent, being on hillsides, thus giving very good dra age. Water was obtained from the Nogales town supply, of excellent quality and sufficient quantity.

Food and its preparation.—This has been excellent, no cases being reported in t camps where the quality and quantity were not what they should be. At the ba hospital, on account of the limited facilities, much difficulty was experienced feeding the large number of patients during the fall. With the installation of t diet kitchen, dish-washing room, and officers' mess room it is thought this will corrected in a large measure.

Incinerators placed near the kitchens have been used to dispose of slops, garba and camp refuse. Manure has been hauled away to the dump pile, several miles fr the camp, and burned. The Harvard box latrines have been in use, being burn out with straw and oil once a day. This latrine has not been altogether satisfacto in this camp, for in many places the pits had to be dug by being blasted into t solid rock. The liquid contents have not been absorbed, and in some cases where was attempted to fill up these pits the earth thrown in only had the effect of pushi the liquid fecal matter out over the brim. In those localities where it is proposed build cantonments these pits will have to be dealt with, either to consume the co tents with a large quantity of quicklime or pumped out and hauled away.

Clothing.—There was considerable complaint in the fall that sufficient clothing w not furnished the troops in this district.

The morbidity and mortality will be more specifically dealt with in the report fr the base hospital, for practically all serious cases and all deaths occurred at th hospital.

The department laboratory.—This institution has been of great value to the distr surgeon and sanitary inspector in making early diagnoses in cases of infection, th giving an early opportunity to stamp out infection. It is believed that the princip function of these laboratories in the future is to aid the sanitary inspector in t sanitary control of infectious diseases.

The surgeon, Base Hospital No. 1, Fort Sam Houston, Tex., repor as follows:

The post hospital at Fort Sam Houston was designated by the Secretary of War the base hospital for the Southern Department on November 3, 1915, and as B ospital No. 1 on September 28, 1916. This hospital was constructed nine years ago d has been added to from time to time since that date. It consists of eight wards, ch ward capable of accommodating 25 patients if proper use is made of the porches, th the usual arrangement of the basement, offices on the first floor, operating room, rary, and dressing rooms on the second floor; room for Hospital Corps personnel d prison ward on the third floor. In addition there are the usual rooms on the sec- d and third floors over the dining room originally intended for housing the hospital rsonnel, but these rooms have been used for patients.

When the militia were called into the Federal service, it was necessary to enlarge is hospital. This was accomplished by building 18 standard temporary wards, a reroom, which contains a room for patients' effects, a linen room, and a small room ed for hospital personnel, a large L-shaped dining room, a kitchen, and the neces- ry toilet and bath accommodations. The temporary wards were constructed in two stallments. First construction consisted of 4 wards, a dining room, a latrine (con- ining 12 closets and lavatory facilities), and a bathhouse consisting of 12 showers. e work on these buildings was begun on June 7 and completed June 25, 1916. The cond construction consisted of 14 wards, a storeroom, an additional dining room, d a kitchen. The work on this construction was begun July 7 and finished August , 1916.

Patients were first received in the four wards constructed on July 5 and in the last wards constructed on July 14.

The temporary wards normally accommodate 30 patients. This number can be creased to 34 without material crowding, and by using the porch 40 patients can be red for in each ward. Counting 40 patients to each temporary ward, the maximum d capacity of this hospital would be 980.

Twenty-eight deaths from various causes occurred during the year.

The operating room in the post hospital was used as the operating room for the base spital. It has white tiling on the floor and on the wall to the height of 5 feet. The om contains two windows on the north and a skylight. It is splendidly lighted at ght and on dark days by a Noshado light.

The department laboratory occupies the first floor and basement of the isolation ilding in this hospital group. This laboratory does the work for this hospital.

The X-ray machine used is a Wappler 4-kilowatt, 220 alternating current, Coolidge quipment. The results have been uniformly excellent.

The post hospital is of light brick construction, heated by a hot-water system.

The temporary wards are constructed of pine, 100 feet long by 20 feet wide with an foot porch surrounding entire ward. The roof is tarred paper. The dining room d kitchen are constructed and covered by the same material. The floor in the itchen is of concrete. The entire temporary plant is heated by steam, which is rnished by a battery of six boilers. All buildings are lighted by electricity.

The post hospital contains the usual bathing facilities. A bathhouse with concrete oor, 12 shower baths, furnished with hot and cold water, is situated about the center the temporary wards and furnishes adequate bathing facilities.

The post hospital and temporary hospital buildings are connected with the post wer system. Excreta is disposed of in that way.

Garbage is collected in cans and carried away by the Quartermaster Department, and estroyed in the post crematory.

Fort Sam Houston is connected with the San Antonio water supply, which is abund- nt, comes from artesian wells, and is pure.

Aside from the commissary, the food supply is purchased from the San Antonio arkets. The quality is excellent and the quantity sufficient. The kitchen facilities this hospital are excellent and entirely adequate to handle at least a thousand atients.

The entire hospital is equipped with the Standard Medical Department equipment excellent quality and abundant in quantity.

The maximum number of medical officers on duty at this hospital during the year as 59 and the average 21.69.

The maximum number of enlisted men, Medical Department on duty was 235, and e average number 158.99.

The maximum number of members of the Army Nurse Corps on duty at this hos- ital was 58 and the average number 42.81.

When it became evident that this hospital would have to be enlarged, application as made for the assignment of members of the Army Nurse Corps to duty here. The rst nurses arrived June 30. Fortunately, it was possible to rent the Cunningham roperty for a nurses home. This building will accommodate about 20 nurses. Plans ere immediately made to build additional shelter for the nurses, and by August 15 ccommodations were ready for 56 nurses. It was the intention at first to construct two buildings similar to the standard temporary ward divided into rooms with tl idea that two nurses should live in each room. These two buildings were constructe on the Cunningham property, and owing to the location of trees, it was necessary make very material changes in the design of the buildings. They are better built tha the wards, and the porch, which is 10 feet, is on the east side of the buildings onl Each building has the necessary bathroom and lavatory facilities, with hot and co water. The hot water is furnished by a Pittsburgh heater. The buildings are light by electricity and are heated by a gas stove in each room. Taking it all together, tl accommodations have proved extremely satisfactory. It is estimated that the tv buildings for the nurses cost $3,000 apiece. The total allotment made for this hospit since June, 1916, is $56,828.90. This statement explains why only $50,828.90 w reported for the construction of the temporary hospital.

THE PUNITIVE EXPEDITION INTO MEXICO.

The mean strength of all troops, including officers, on the expedion into northern Mexico was 9,659, or when averaged for the ntire year, 8,343, on which is based the calculation for this report.

The following figures cover the period from March, 1916 (the eginning of the expedition) to the end of the year.

The admission rate for all causes was 810.26, that for disease being 88 and that for external causes 122.26. The diseases causing the ighest admission rates were: Diarrhea and enteritis, 193.10; veneeal diseases, 64.60; diseases of the pharynx, 51.66; malarial fevers, 9.96; undetermined fevers, 24.81; and diseases of the teeth and ums, 23.73.

The noneffective rate was 15.41 for all causes; that for disease eing 12.79 and for external causes, 2.62. The two diseases causing he highest noneffective rate were diarrhea and enteritis, 2.21, and enereal diseases, 2.14, respectively.

The rate for discharge on certificate of disability was 18.89; that or disease being 15.16, and for external causes, 3.73.

The death rate for all causes was 7.79 per 1,000; that for disease eing 2.28, and for external causes, 5.51. In all there were 65 deaths, 6 of which were attributable to external causes.

PUNITIVE EXPEDITION, MEXICO—SPECIAL DISEASES.

Diarrhea and dysentery.—The epidemic which started at El Valle he first part of July gradually subsided under the sanitary measures dopted, so that on August 1 there were 9.5 per thousand present oneffective. During August this further decreased so that on ugust 31 there were 4 per thousand present noneffective.

At Dublan the average for the month was 3.1 per 1,000 present oneffective.

For the whole division the average for the month was 4.5 per 1,000 resent noneffective.

Measures taken to prevent these diseases in addition to those lready in use are embodied in an approved sanitary recommendaion of the division surgeon and a sanitary memorandum of the anitary inspector, as follows:

> In view of the cases of infectious disease occurring in this division, it is hereby ecommended that the following order be issued for the division:
>
> No persons will be allowed to work about or open stores in the camps of this proision division until they have been examined by a medical officer, have received yphoid prophylaxis, been vaccinated and examined for vermin. They will be egularly inspected by a medical officer.
>
> No foods except articles in original packages or drinks except those in original ottles from the United States, or fruits except those having a rind will be sold.
>
> In view of the fact that infectious disease of intestinal type has occurred in camp ertain sanitary precautions are again recommended:
>
> All cooks and assistants should be of cleanly personal habits, always washing their ands before handling or serving food. Any cook or assistant with intestinal trouble hould be relieved promptly till he has recovered.

Each man should wash his hands before eating and should carefully scald his plat cup, knife, fork, and spoon before eating. This scalding should be thorough, an the water for the purpose should be kept on the fire and boiling until the last ma has had an opportunity to use it.

Nothing should be eaten or drunk outside of the company mess except package c canned goods which have been carefully packed by the manufacturer, and are sti packed when bought. Fruits with a rind are permissible.

No raw vegetables or milk should be eaten.

As the infection in this type of disease is always taken through the mouth the nece sity for the above precautions would seem clear.

The regimental medical officers will keep a strict supervision of the men of the command to detect the presence of any cases of fever, diarrhea or dysentery. Th cases of fever and dysentery should be sent to the hospital for isolation.

Venereal diseases.—Dublan showed the largest figures being, average present noneffective for the month 3.5 per 1,000.

Early in the establishment of the camp at Dublan prostitute began to practice their trade in the outskirts of the camp. Earl in July they were rounded up, segregated, and put under observation. It is believed that these measures combined with the measure of prophylaxis as provided for in General Orders No. 17, 1912, kep these diseases at this comparatively low figure.

Fevers.—There were 51 cases of fever at Dublan during the month Six proved to be paratyphoid (3 of which were diagnosed by laboratory findings); 11 proved to be malaria (determined by microscopica findings); 2 proved to be tonsilitis; 1 proved to be bronchitis; proved to be dermatitis of the nose, type undetermined; 29 wer fevers of a few days' duration, probably due to digestive disturbance as no other cause could be found.

About the 11th of August the Thirteenth Cavalry at Las Galera on the Santa Maria River began to develop malarial fever. Th command was at once put on quinine prophylaxis, isolation of th sick, and the use of mosquito bars.

The disease steadily increased up to the last of the month, whe it was 2.1 per 1,000. On August 29 the command arrived at Dubla and as there are no mosquitoes at Dublan it is believed the infectio will rapidly subside under the above measures.

The intestinal diseases have diminished very much under th measures of cleanliness of cooks, kitchens, and the sterilization c mess kits immediately before eating. For some time past all wate for drinking purposes has been boiled, as analysis showed the wate to be impure in many cases.

There were no prevailing diseases, but several cases of malari developed. Prophylactic doses of quinine were given to the entir command twice a week and there was no epidemic of malaria. Th number of mosquitoes and flies was greatly reduced owing to the col weather. A few mild cases which were clinically diagnosed dysenter were noted but were promptly cleared up after a few doses of emeti and salines. Only once was there more than one case under treatment at the same time. Dietetic errors caused some cases of gastriti and gastroenteritis. The malaria in the Thirteenth Cavalry ha practically stopped under the measures of isolation of the sick an cinchonization of the command.

Paratyphoid fever has been checked in the Eleventh Cavalry, except in September 17 cases came down with the disease. This wa thoroughly investigated but nothing definite could be found to account for the infection. It was thought that some hamburger stea ten on September 11 was the probable cause of the infection: but e feces of the cook and kitchen police proved negative for para- phoid, and on questioning the sick men more closely the majority them said they felt bad a few days before they ate the hamburger eak. A more scrupulous cleanliness of the kitchen and kitchen ensils was insisted on and carried out; further, water was boiled for inking purposes. These cases in the Eleventh Cavalry have since adually decreased. A few cases of this disease occurred in the hirteenth Cavalry, and the Seventh Cavalry still continued to have ses.

Provisions were made to vaccinate the whole command with anti- aratyphoid vaccine. The Seventh, Eleventh, and Thirteenth Cav- ry and Fourth Field Artillery were given their first dose September and 30.

The following recommendations were made to the commanding ficer at Camp Dublan:

> Many of the latrines have been found without the piece of tin on the inside of the x to deflect the urine to the center of the pit. This should be corrected at once herever needed.
>
> The day picket lines on the river bank are not sufficiently policed. This manure ould be hauled away at least twice a week to the dump northwest of camp, there be burned.
>
> There is still some diarrhea in the camp and it is believed the following additional nitary precautions should be adopted in view of the fact that in all probabilities is diarrhea, while mild in type, is of an infectious character and transmitted by rriers and by contact:
>
> 1. The cooks should be required to keep their persons scrupulously clean, likewise e kitchen police, and this feature should be supervised by the company com- ander and the surgeon.
> 2. No cook should be permitted to cook or handle food if suffering with diarrhea.
> 3. Kitchen police should be permanent.
> 4. Each man, immediately before eating, should be required to dip his meat can, p, knife, fork, and spoon in boiling water.

eriodic prevalence of epidemic diseases and pneumonia in Mexico, also the number of gunshot cases and killed in action, by months.

Year.	Typhoid.		Paratyphoid.		Smallpox.		Measles.		Diphtheria.		Cerebrospinal meningitis.		Pneumonia.		Gunshot wounds.		Killed and wounded in action.	
	No. 1.		No. 2.		No. 12.		No. 14.		No. 17.		No. 108.		No. 208.		No. 396.		Nos. 462-6.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1916.																		
nuary																		
ebruary																		
arch							2						1		12	9	7	7
pril							3						2		17	6	12	5
ay			1				1						1		12	5	2	2
une					1		1						1		20	13	11	12
uly	2		1												10	1		
ugust			3				1								10			
eptember	1		55												3	3		
ctober	2		31										1		8	1		
ovember	2												6		7	2		
ecember													8	3	8			
Total	7		91		1		8						20	3	107	40	32	26

The division surgeon, punitive expedition, United States Army reports as follows:

Medical Department organizations and general equipment.—The regiments are equipped with a regimental infirmary, one ambulance, and the regimental and comba equipment.

While there has been no service on the divisional battle line, there has been som diversity of experience, extensive maneuvers, and camps of the equivalent of one an two brigades, and smaller ones, representing the waiting periods of war.

It has seemed very apparent that the reduction of the medical equipment of regiment to the combat equipment alone does not give sufficient for its service, an that it should not be less than a hospital infirmary tent, with sufficient supplies f the daily sick calls, an ambulance, and that the combat equipment should be hel packed for use in action. The use of a camp infirmary by more than one regiment i impracticable.

In the maneuvers the need of digging tools, folding litters, and of larger amount of ordinarily used supplies in divisible units or bandoliers for carrying forward to th lines, or for squadrons or troops separating from regiments, instead of the heavy chest now in use was noted.

It is the general opinion that it would be better to adopt a light standard aparejo a used by the machine gun companies of the Artillery which would be more easil obtained or repaired or replaced than is the Medical Department pack saddle.

Field hospitals and ambulance companies.—There are with the division two fiel hospitals, operating with extra equipment, as camp hospitals, but able to move a once. One hospital has motor transportation and one animal transportation.

The two ambulance companies have been organized as motor ambulance companie and their animal ambulances and extra personnel have been organized as provisiona companies so that there are now two motor and two animal companies.

The motor companies have been used only for evacuation work. There has been n service behind the battle line, and discussion as to the possibilities of motor transportation under all conditions is partly speculative. There have been certain condition however, of water, mud, and sand when the motor transportation could not perfor the service of mule-drawn transportation, and while these weaknesses of the moto may be to some extent overcome in the future, it is the conservative opinion here tha 50 per cent of the Medical Department transportation for the interior work of a divisio must be kept, at present, as animal-drawn transportation. The evacuation ambulanc companies should be motor companies.

The types of motor ambulances now in use are very satisfactory, and the motor ambulance companies have been very efficient and effective organizations. The Medica Department is handicapped, however, by being compelled to go to another departmen for the accessory motor vehicles which experience shows are necessary. It shoul furnish all the transportation needed without regard to its character.

Personnel.—The Medical Department of the expedition has been more liberall supplied with Regular medical officers than could be expected, but it has been diff cult at times to meet all conditions. Many changes have occurred and of the medica officers who entered Mexico with the expedition only 54.2 per cent now remain. Th number of medical officers in the field has varied from 3.5 to 4.5 per cent. The highes number including the receiving hospital, Columbus, N. Mex., has been 5.5 per cen Seven-tenths of 1 per cent is the least possible number with which the necessary dutie can properly be performed, and this percentage does not give sufficient margin f sanitary work, emergencies and casualties.

The numbers given in the Tables of Organization are barely sufficient, with n allowances for disability and the many additional duties arising. There should be i addition a reserve under the division surgeon for immediate use in emergencies.

The allowances of enlisted personnel with field hospitals and ambulance companie should also be liberal enough to give a reserve for replacing casualties and for pe forming the many sanitary duties which can not be specifically stated in table without reducing too much the working force of those organizations.

Rations.—Owing to the long line of communications the troops were kept longer o the reserve and field rations than has before occurred in the service.

There has been a general feeling that the reserve ration should contain some add tional article, and the individual longing is for something sweet. Sirup, additiona sugar, and rice have been frequently mentioned.

It is probable that an allowance of dried highly saccharinated fruit, in small package would be a welcome and wholesome addition to the reserve ration, and would enabl men to eat more of the hard bread and tolerate the ration longer.

Beans, both white beans and frijoles, were found to give digestive troubles durin the period when the time and facilities for careful cooking were not available.

Notwithstanding the absence of means for keeping food, very little food poisoning curred.

Equipment of troops.—In the general equipment of troops there is need of a water gon with filtering attachment and some changes in the rolling kitchens, which are t yet developed to do the kind of cooking desired by American troops.

An improvement should be made in winter clothing for the men for periods when e olive-drab shirt is too light and the olive-drab coat too tight and unsuitable. A cided want is some better and warmer night cover for cold weather, such as a light nket sleeping bag.

Sanitary methods.—The camp sanitary methods have been those now in general e, modified as necessary by improvised appliances.

Manure and wastes have been burned at the dump, garbage at the kitchens. For rines, trenches or open pits were used at first; later, boxes improvised from packing xes of various kinds, a few with only lid covers on pits. Later, oil and hay were ed for burning, and still later the method of oil and bone black was used at Camp ublan.

Water purification.—The Lyster bags, with hypochlorite of lime, were given sufficient st to determine the great usefulness of this method. It is stated that the continued e of water thus purified is unpleasant. This defect is partly due to defective ndling, insufficient number of bags, and using too much powder. An effort to tain a satisfactory neutralizing powder is also recommended.

The Darnall filters were also used by some organizations and gave universal satis- ction, as the water is clarified in the purification and has no unpleasant taste. uring a large part of the camp period the water was boiled for drinking, the other pliances being held for active service.

Personal cleanliness, laundries.—A great deficiency, especially for troops operating ay from sources of supply, is the means for personal cleanliness and for laundering, d the importance of these matters as sanitary measures can not be too greatly timated.

Summer shower baths have been made by all troops according to models as shown prints. Facilities for hand cleanliness and for winter bathing have not been as sily supplied.

Troops can not successfully do their own laundry work for months with cold water, d can not be kept in health when they can not wash and have their clothing laun- red in a proper manner.

The establishment of a laundry, where clothing is boiled and ironed, has been found eliminate lice and several elements of contact infection during the existence of epi- emic diseases and to render the use of more expensive and less effective modes of sinfection unnecessary, besides having a good effect on the morale of the command.

Everything must of course give way to active operations, but in the periods of rest should be the especial function of some department to attend to these matters, pply all necessary means for sanitation, personal cleanliness, and laundry, and this thout requisitions and without effort on the part of the troops, and to take over y necessary equipment on movement.

The necessary equipment could be supplied promptly and operated at very much ss trouble, labor, and expense and more efficiency than the makeshift methods hich have to be slowly developed each time.

Regulations for carrying out sanitary matters.—The principles of sanitation are tremly simple. The amount of labor, wear, and tear of inspection by many indi- duals in carrying out these principles in the Army are entirely out of proportion d are not creditable as a matter of efficiency.

Approved methods of disposal of wastes, treatment of water, and cleanliness, with l necessary diagrams and regulations, should be published for all conditions of mili- ry service, travel on trains, in camps in inhabited country and in wild country, the march, in one-night camps and in longer camps, and the responsibility placed ithout question for supplying the means and for carrying out these regulations. he burden at present rests too much on the inspectors.

Base hospitals, medical supply depot, and laboratory.—The cantonment receiving d forwarding hospital at the base, Columbus, has beeen an extremly active and portant part of the expedition; has cared for sick and wounded, furnished supplies d conducted a great variety of helpful functions, and has done this with a minimum penditure for construction and equipment.

Medical supplies have been plentiful and of good quality. The medical supply epot at El Paso has met all demands; has obtained and shipped supplies of all kinds ith remarkable speed, facility, and accommodation, and could not have done better.

Department Laboratory No. 2, at El Paso, has made the blood cultures and exami- ations of all kinds, including water examinations, and has given telegraphic reports

which have enabled the carrying out of sanitary measures with promptness an
confidence, and have gone far beyond the usual field of a laboratory in giving assistanc

Veterinary surgeons.—Reports and recommendations of veterinary surgeons a
inclosed.

Although their exact working status is not yet clear, they have been used for catt
and slaughtering inspection, and effort has been made to increase their connectic
with sanitary matters.

It is recommended that the younger veterinary surgeons be given a course at tl
Army Medical School, followed by a practical course at a post like Fort Riley, an
that their Supply Table and Regulations be given an early revision.

Typhoid prophylaxis, paratyphoid vaccination, and smallpox vaccination.—Son
revision of the present ineffective method of recording and checking the dates of tl
prophylaxis and vaccinations is needed. It was found that a large number of office
and enlisted men had gone over the required period and some had never receive
the typhoid prophylaxis. A large number of the men who volunteered in 1911 we
not given the prophylaxis on their reenlistment, as the period was too short, and we
later overlooked. Many were missed in changes of station and often by the surgeo
expecting the company commanders to notify them of data on descriptive lists.

Very few civilians on duty with the expedition had received the typhoid proph
laxis.

It is recommended that a new system placing the responsibility entirely on tl
surgeon be adopted. It has been suggested that a medical descriptive list be ke
in which all data concerning prophylaxis, vaccinations, and venereal, malarial, ar
other medical history of interest to a medical officer be kept and follow the soldie

Civilians should not be employed for service with the Army until examined, vacc
nated, given the prophylaxis, and registered on a descriptive list as are soldiers, ar
should undergo the same bimonthly and other physical examinations.

Reservists should not be allowed to join without examination, renewal of proph
laxis, and vaccination. Quite a number have joined from their homes with venere
diseases and have been admitted at once to hospitals.

Health of the command.—The admission rate for the period from March 15, 1916,
February 5, 1917, was 585, the constantly noneffective, 25.05, and the death rate, 4.7
The same rates for the Army in 1915 were 726.19, 25.22, and 4.45.

In the early part of the expedition when commands were moving the sick rat
were low; later, as they remained longer in partly settled camps, sickness increase
then, as troops became more permanently established, and with more thorough metho
of sanitation, the sick reports were reduced, the rates at all times being in proportic
to the size of camps, the highest rates and the greatest variety of disease occurring
the largest camps with the greatest civilian contact.

The diseases given the highest admission rates were intestinal diseases, giving a ra
of 247.34 per 1,000; fevers, 46.16; venereal, 43.58; tonsillitis, 40.67; respiratory, 24.3
The venereal were mostly old relapsing cases.

Diarrheas, bacillary, and amebic dysenteries, paratyphoid and typhoid fevers a
common diseases in northern Mexico. The exact classification of the intestinal di
eases, of course, is inexact in the field. Amebic dysentery is common, but not
severe and intractable as in the Philippine Islands.

Ninety-three cases of paratyphoid fever were reported by blood cultures, b
during the prevalence of the disease there were two or three times as many cases
mild fevers of undetermined origin, undoubtedly due to the same infection. Sev
cases of typhoid were reported by laboratory examination of blood cultures. O
had never had the prophylaxis and the others varied from five and one-half years
two and one-half years. It is of interest that these cases occurred in a group of wh
was apparently a pure paratyphoid epidemic and did not differ clinically. The vac
nation of the command ended the paratyphoid fever.

During the prevalence of the above diseases the command was exposed to vario
elements of infection, innumerable flies, polluted water, and contact infection, a
there has been some difference of opinion as to the modes of infection. Flies, whi
were innumerable, were the probable carriers of the paratyphoid fever. A ve
marked reduction of intestinal diseases followed the use of boiled water by co
mands which had been using water untreated.

Malarial fever was almost confined to one regiment, which was for military reaso
camped for some time in a wet region. No cases of typhus fever occurred, and the
was no mortality from any fever.

Causes of transfer to base hospitals.—Venereal diseases constituted the conditi
requiring the largest number of transfers to the United States, syphilis giving t
greatest number of any disease.

ı the first weeks of the expedition gonorrheal cases were the principal causes of
ısfer, but in the succeeding six months syphilis gave each month the highest rate
disease requiring transfer, and it was unquestionably shown that men with this
ase will not stand the hardship of field service. Indeed, their treatment and care
been so troublesome and so expensive that it is very doubtful if it is economical
eep them in the service. All but one of the cases of syphilis were old cases,
y one occurring in Mexico, and many of the gonorrheal cases were relapses of old
s.

eaths.—There were 57 deaths, 20 or 1.67 per 1,000 from disease and 37 or 3.08 per
0 from injury, or a ratio of 1 death from disease to 1.85 from injury.

vacuation of patients on withdrawal of troops.—During the withdrawal of the com-
ıd from Mexico 320 men were transported to the base hospital, Columbus, N. Mex.
this number 175 were transported by ambulances, 39 recumbent and 136 sitting.
145 by truck trains, 89 as guards and 56 as passengers, this number including
ıy slight cases.

ll cases were transported comfortably and without suffering or mortality.

pecial features of the expedition.—The command entered Mexico with equipment
" before the cold weather was over, operated actively in a difficult desert country
a long line of communications with light clothing, shelter, and food supply.
cers and men were on a restricted ration for a longer period than known in our
ıy.

fter the active period, without materially increased means, clean, well-kept,
erly camps were established. Adobe was used for shelter, sanitary appliances,
cooking. Starting with separate appliances and fires for open cooking, ovens,
ling water, and incinerators an economical combined adobe range with one fire
developed for these purposes.

he punitive expedition lived nearer the earth and learned to get along with less
n any command in our experience. It has been hardened by active service and
y profitably interested and occupied in professional work and training; has been
erful, and has maintained the good health and sanitation that go with good dis-
ine. The country has never had a more thoroughly trained and fit command than
one which marched back to the border

ith the direct effective methods and the cordial backing of the division commander
task of handling the different epidemic diseases and sanitary matters in the
edition has been an easy and pleasant one.

CULAR 12.

Office Division Surgeon,
Provisional Division,
Dublan, Mexico, September 8, 1916.

edical officers on duty with the Provisional Division, punitive expedition, will
e report on the operation of the Medical Department coming within their exper-
e during the expedition. Junior medical officers serving as assistants will not be
ired to make report but are invited to make such report and recommendations
hey may desire.

t is particularly desired that the work of all medical officers and enlisted personnel
he Medical Department be made of record, and that any improvements of the
tary service developed during the expedition be reported.

he following items are suggested for report as well as any personal experience and
ters of interest to the Medical Department and to the history of the expedition.

The organization of the Medical Department of the expedition.

Marches and camps.—Any especially arduous marches of interest with report
ffect on the command, and the working of the Medical Department units.

Medical Department personnel with recommendation for any changes.

The equipment of the Medical Department with any recommendations as to
nges or superfluous or deficient equipment.

Transportation.—The amount needed for organizations on the march, in camps.
evacuation of the sick and wounded. Questions of mule and motor transporta-
and their fields of usefulness on and off roads, etc.; experience in transportation
ick and wounded; desirability of the Medical Department owning and supplying
wn transportation.

Rations and diet.—Modifications which should be made in the reserve ration;
th of time it can be used without evil results; the first articles which should be
ed to make field rations; cooking equipment for different Medical Department
ts.

Observation on methods of water purification and use of purified and unpurified
er by the command.

8. *Camp sanitation.*—Recommendations as to the absolutely essential measures f moving command, in camps of a few days, and in more permanent camps which shou be formulated in orders to the Army, and which should include the departments supply. Is the burden of carrying out common well-known sanitary measur accepted by the proper officers?

8½. Any changes in Medical Department reports, returns, or forms.

9. The nature of the diseases encountered; diseases due to food, water, conta infection, flies, dust, climate; discuss the camp diarrheas or dysenteries; comparati sickness in moving commands and in camps.

10. The general physical condition of the command at the close of the expeditio

11. Officers are requested to make up their report at once and to complete and su mit immediately on the order for the return of the expedition to the United State

PUNITIVE EXPEDITION, UNITED STATES ARMY.

Under date of March 30, 1916, the division surgeon states that at the first moveme of troops across the border at Columbus, he was directed by the chief of staff to pr ceed with the troops and investigate the water supply at the proposed camp site Las Palomas.

Camp was made after a march of about 7 miles, and the division staff establishe This troop movement consisted of the Thirteenth Cavalry, Sixth Infantry, and Si teenth Infantry with regimental sanitary personnel. The Seventh Field Hospit Company and Ambulance Company No. 7 remained with other troops at Columbu During the three days in this camp, there was opportunity to return to Columbus a have medical officers assigned, etc.

About 12 hours after the troop movement from Columbus, the Seventh and Ten Cavalry and two batteries of Sixth Field Artillery crossed the line near Culberso Ranch, N. Mex., under the personal direction of the division commander. Th column had sanitary personnel and a small amount of supplies; they marched ov 100 miles in two days.

When this camp was reached by this western column, the ambulances, most of t supplies, and two medical officers were left here with the Artillery and detachmen and the regiments of Cavalry proceeded southward at a rapid rate.

The Cavalry and Infantry regiments and headquarters left Palomas on March 1 17, and 18. The march extended 26 miles over a steep, rocky, dusty road. The was no water en route. Camp was established at Boca Grande, where the water fro Casas Grande River was fairly good.

The Seventh Ambulance Company joined at La Espia, the next camp, havi marched south by way of Gibsons Ranch. The Seventh Field Hospital joined Ojo Frederico, having marched by way of Gibsons Ranch with the field trains of t Seventh and Tenth Cavalry; first march 35 miles, second march 17 miles, and thi march 26 miles.

At Ojo Frederico the division surgeon, in addition to other duties, resumed co mand of Field Hospital No. 7. One mule from the field hospital train was dead, a one was exhausted and has not been able to work since the second day. From t point the Field Hospital and Ambulance Corps accompanied the main body. T Field Hospital Company marching on foot was so thoroughly exhausted by a 25-mi march against the wind on the day of reaching here, that had it been necessary care for the sick or wounded, a great hardship would have resulted to both the p sonnel of this company and to the patients. Camp was made in a raging dust sto which lasted over 24 hours. For two nights after the wind subsided ice formed the division surgeon's tent.

In order to carry the requisite amount of rations and forage and not overload t train, considerable of the field hospital equipment was left in Columbus, but 1 patients could now be cared for.

On account of the scattered condition of this command and the fact that ea regiment is supplied with far more equipment than is contemplated in the Tables Organization, there has been little division surgeon work to do.

About the middle of March the division surgeon was able to forward medical offic Hospital Corps, men and supplies to the Seventh, Tenth, and Thirteenth Caval Regiments. Maj. Eastman was the senior to go forward.

SANITATION.

The water supply here and at other camps has been and is open to suspicion reason of the probability of pollution, not poisoning. Many organizations came i the field without the bag, water, sterilizing, and practically none had the hypochlor powder and the bag both; for the reason consult General Orders 39, 1915.

he division commander asked for a 30-day supply of powder and enough bags to ply each organization.

o diseases have arisen which could be charged to climatic conditions or local ections. Regimental surgeons have been directed to talk lice dangers and pre- tion in their regiments and to have inspections.

ttention is called to the unfortunate shortage of ranking medical officers at the ler stations of the Seventh, Tenth, and Thirteenth Cavalry Regiments, which ilted in two of these regiments taking the field with Medical Reserve Corps officers one with a junior captain as regimental surgeon. This has now been corrected, only after two weeks of the campaign have passed.

ssignment of medical officers to regiments, instead of to stations, and with due ırd for rank and experience would seem to be indicated.

TRANSPORTATION.

he surgeon medical base group says that a motor ambulance company is promised, ch improves the situation in regard to transfer of patients. So far this has been e on motor trucks, irregularly and with some harsdhip to patients. There have n no serious cases to transfer.

fter careful observation, the division surgeon is of the opinion that the personnel eld hospitals and ambulance companies should be provided with transportation. marches are necessarily long, on account of the scarcity of water and exhaustion; these companies are not capable of giving the proper care to the sick and wounded r the fatigue of a march of between 20 and 30 miles.

he line of communications is over 200 miles long, and there is but one ambulance pany and field hospital now located near its mid point. The location seems cal, but just what would be done with say 200 or more wounded a hundred miles he south during the four days the field hospital and ambulance company were ching to their assistance, remains problematical. The solution seems to be to orize the Seventh Ambulance Company and the Seventh Field Hospital as nptly as possible.

he regiments each have mule-drawn ambulances so that sick or injured on inac- ible roads could be brought in. To motorize the field hospital would require ree-ton trucks in order to carry the equipment and personnel and 1 seven-pas- ger touring car for officers preferably Cadillac. The four-wheel drive steer and e Jeffry Quad seems to be giving excellent service though it makes small gasoline age.

rucks should be purchased by the Medical Department, as ambulances, and could "temporarily" used to transport the field hospital.

s witness by the difficulties of the Seventh Field Hospital with transportation, at Sam Houston, inexperienced quartermaster drivers, who had to be replaced by pital Corps men on the march, etc., so long as the Quartermaster Corps provides sportation for Medical Department units confusion, conflict, and inefficiency result.

UNITED STATES MILITARY ACADEMY, WEST POINT, N. Y.

he surgeon at the United States Military Academy renders the owing interesting report on the health and sanitary conditions hat institution:

rps of cadets.—The health of the corps has been excellent throughout the year. re were 663 hospital admissions during the year, equivalent to an annual admission of 992.5 per thousand. As this is the first sanitary report from this station cover- a calendar year, no admission statistics are available for comparison. The last rt, however, for the fiscal year ending June 30, 1916, showed an annual admission of exactly 1,000 per thousand, as compared with 1,127 per thousand for the year eding. This is the smallest admission rate recorded in the past 10 years.

e noneffective rate for cadets in hospital was 14.19 per thousand for the calendar 1916. For the fiscal year ending June 30, 1916, the rate was 13.82 per thousand, ompared with 19.83 for 1915; this is the smallest rate during the past 10 years, pt in 1914, when it was 11.92.

ith one exception there were no cases of critical illness or of serious injury under ment during the year; one cadet developed pulmonary tuberculosis and was trans- ed for treatment to Fort Bayard, N. Mex., where he has since died.

mild but very contagious epidemic of influenza occurred early in the year, lasting t one month and affecting some 16 per cent of the corps. One hundred and eight cases were admitted to the hospital for treatment, the average duration of each c being about four days; there were no serious complications. There were four adm sions for malaria during the year, two new cases and two recurrences from previ infections. Nine cadets were discharged for physical disability as follows:

Valvular disease of heart..
Venereal disease..
Defective vision..
Chronic atrophic rhinitis..
Chronic otitis media..

Two cadets were transferred to the Walter Reed General Hospital, Washingt D. C., with dementia precox. Two cadets died during the year, both being on lea of absence.

Of the 663 hospital admissions, 152, or 22.92 per cent, were for diseases of the dig tive system, including gastritis and gastroenteritis, diarrhea and intestinal colic and constipation 52; general diseases furnished the next largest number, 135, or 20 per cent, including 108 cases of influenza; injuries and other affections due to exter causes furnished 131, or 19.75 per cent; diseases of the respiratory system 86, or 12 per cent; diseases of the eye and ear, including 39 cases of conjunctivitis, 67, or 10 per cent. Of the 131 affections due to external causes, 22 were football injuri 20 due to accidents during riding, 19 to gymnastic exercises, 12 to badly fitting sh 9 to baseball, and 3 to basketball.

Football.—During the football season, from September 1 to December 1, there w only 22 accidents requiring hospital treatment. This is the smallest casualty during the past 10 years and is the direct result of careful supervision of the foot squad on the part of the medical officer in charge and of the coaching staff dur practice and in contests with other teams.

The following table shows the number of football injuries during the past 10 y and the number of days lost by treatment in hospital:

Year.	Number of cases.	Days lost in hospital.	Aver days cas
1907	25	117	
1908	62	362	
1909	34	174	
1910	27	210	
1911	34	169	
1912	35	259	
1913	28	157	
1914	36	221	
1915	25	159	
1916	22	106	

Enlisted men.—There were 255 admissions to sick report during the year in a c mand numbering 719 men, equivalent to rate of 335 per thousand. The noneffect rate was 7.46 per thousand. As a basis for comparison the following table is submit showing corresponding rates for fiscal years since 1911:

	1911	1912	1913	1914	1915	1
Admissions to sick report	622	401	415	302	359	
Rates per thousand (admission)	825	626	603	468	501	
Noneffective rates	18.87	14.81	15.26	11.25	9.35	
Mean annual strength of command	649	648	688	702	716	

The admissions for transmissible diseases included venereal 24 (10 were read sions); influenza 29; malaria 3 (2 were readmissions); tuberculosis 1; and cerebrosp meningitis 1.

The general sanitary conditions were excellent throughout the year. Mosq breeding was kept at a minimum by oiling stagnant water in places where drai was impracticable and in cutting grass and foliage in the neighborhood of habitati Fly breeding was controlled by prompt removal of manure and by treating st floors with a solution of hellebore in a strength one-half pound to 10 gallons.

Poliomyelitis.—Late in May poliomyelitis in epidemic form appeared in Brook having its apparent origin in the water-front section of that city. It spread t rough of Manhattan during the month of June, and by the first week in July more n 100 cases daily were being reported from New York City. The epidemic reached height in Brooklyn on July 11, when 151 new cases were reported, and in Greater New York on August 3, with 217 new cases. From this time the disease steadily lined in that city, the daily number of new cases falling permanently below 100 August 25, below 50 on September 10, and below 10 on October 15, reaching the mal average of from 2 to 5 per week during the latter half of December.

Originating as it did in the early summer months, at a time when many residents he city were about to leave for their annual outing, the disease spread from New k City along the main highways of travel to Long Island and to districts along the dson River, then to the central part of the State and later to counties in the north- tern section, south and east of Lake Ontario. The most heavily infected counties e, in the order mentioned, those of Long Island, those bordering the southern two- rds of the Hudson River, and the two central counties containing the cities of acuse and Utica. By the middle of July the number of new cases reported from State (outside New York City) exceeded 25 daily, and on August 1 the number eeded 50, the maximum being reached on August 22, when 142 cases were re- ted. From this date there was a decline in the epidemic until the first week in tober, when the number of new cases daily fell below 20, reaching the normal level ut the middle of November.

On account of the appearance of poliomyelitis during the first week of July in towns ng the Hudson River, both above and below West Point, and because of the evident ger of introducing the disease into the garrison by means of visitors and tourists iving from infected districts, a memorandum was issued on July 8 by the super- endent, on the recommendation of the surgeon, Capt. H. C. Coburn, Medical Corps, bidding children under 16 years of age from passing back and forth on the reser- ion, and requiring all persons residing or employed on the reservation to notify surgeon at once of any suspicious case of illness.

The first recognized case of poliomyelitis in Highland Falls was reported by the al health officer on July 29 in a child 18 months old in an Italian family living near center of the town; the child died on the following day. The origin of this case ncertain, but there was a history that the family had been visited by friends from w York City two weeks before.

The second case, also fatal, was reported on July 30, and occurred at the extreme thern end of the town, some 4 or 5 miles distant. In this case the parents stated t the child had been brought from Jersey City about three weeks previously.

The third case occurred about this time in a child of 18 months belonging to a family ing in the country 4 miles northwest of the village of Highland Falls. There was istory that the family had been visited by two adults from Brooklyn about two eks previous to the onset. In these three cases there was an uncertain history of posure to infantile paralysis in a district known to be infected or of contact with ults who had come from such district, but there could have been no ætiological nection between any of them.

The occurrence in the village of Highland Falls of three cases of infantile paralysis, ctically simultaneously but at points widely separated, indicated multiple foci of ection at fairly close range and showed the necessity of taking greater precautions protect the garrison. A general order was accordingly issued on July 31 upon the ommendation of the surgeon, Capt. H. C. Coburn, jr., Medical Corps. The salient visions of this order were as follows:

The discontinuance of general pleasure travel to and from West Point; visitors to st Point, including persons arriving on business, to be admitted on permit only, er investigation to determine that they had not been residing in infected districts; enlisted men on duty at West Point to be restricted to the reservation; classified ilian employees to be allowed to come and go on permit; certain other civilian ployees to be furnished transportation to and from their work; others to be marched and from work under charge of a noncommissioned officer; servants not to be allowed leave the reservation; the vending of all food products, vegetables, fruit, meat, ., to be prohibited.

By the middle of August all towns in the immediate vicinity of West Point became ected, and as the number of cases reported from these towns showed a steady rease it was thought advisable to still further restrict travel to and from West int and to reduce to a minimum all outside communication. Accordingly upon ommendation a memorandum was issued on August 14 providing that "all re- ests for permits to enter the reservation for any purpose, except necessary pleasure rposes, be withdrawn."

From the latter part of July no further cases were reported in Highland Falls until gust 19 when I was called in consultation by one of the doctors in that village to see a suspicious case in a boy of four years. There were no definite physical sig of infantile paralysis, but on the following day a spinal puncture was performed whic showed a perfectly clear fluid with a cell count of about 200 per cubic millimet and a double plus Fehling's reaction. A positive diagnosis was at once made and t case reported to the Surgeon General as poliomyelitis. It may be added that a expert diagnostician from the New York State board of health examined the case few days later and agreed with the diagnosis. A transitory paralysis of the extern rectus of the right eye subsequently appeared, lasting about two weeks. This ca occurred in the family of a civilian living about 100 yards from the house in whic the first case was reported. As a period of about three weeks elapsed between the two cases and as the incubation stage of the disease is believed to be less than tw weeks, it is probable either that some "missed case" occurred in the interval or th the second case was contracted from a carrier who had come into contact with t first or with some other case.

Following this case there were 10 more during the month of August and 10 betwe the 1st and 15th of September, on which date the last case of this series was reporte On November 16 a child of 3½ years was reported with infantile paralysis living in family about 7 miles southwest of West Point. The infection was probably co tracted at Fort Montgomery, the next township south of Highland Falls. The chi was seen in consultation by one of the post medical officers and the diagnosis confirme This was the last case occurring in this vicinity so far as known. These 25 cases we about equally divided between the civil and military population of the town, t latter including the families of soldiers and civilian employees.

A large detail of officers was due to report for duty near the end of August and i order to minimize the danger of the introduction of poliomyelitis into the garris the adult members of their families were not permitted, for a period of two weeks, associate with children under 16 nor with cadets, except as required by official dutie children of these officers were placed in quarantine for two weeks. Upon their retu from furlough on August 28, the second class were placed in camp under guard a were kept from coming in contact with other members of the corps for a period of tw weeks. This quarantine, however, did not interfere in any way with academic wor During the continuance of the epidemic in Highland Falls no children under 16 yea living on the reservation were allowed to attend school, Sunday school, or church.

As soon as a case of infantile paralysis was reported in the family of any enlist man in Highland Falls, the soldier was directed to return to his family and to rema there for six weeks. Prior to his return to the garrison for duty his nose and thro were treated daily for three days with an antiseptic solution.

During the last two weeks in August there was a marked increase in the number cases of infantile paralysis reported in Highland Falls. Up to August 19 there ha been only three cases. From that date to August 31, 11 new cases were reported and o each on September 1 and September 2. On account of this rapid increase in cas it was decided to make a complete medical survey of the military population Highland Falls and to persuade, if possible, the local health officer to do the sam with respect to the civil population, with a view to determining whether or not a cases of the disease were being recognized and reported. Accordingly, with t consent of the superintendent, Capt. A. N. Tasker, Medical Corps, was placed charge of the survey work and was given a commissioned medical officer as an assis ant, Lieut. F. B. Hutton, Medical Reserve Corps. On September 7, with the acqu escence of Dr. Kurtz, local health officer, I had an interview at Albany with t deputy health commissioner, Dr. Linsly R. Williams, and explained to him t condition of affairs in Highland Falls, and asked for cooperation of the State board health in our efforts to make a general medical survey of the town. He very gene ously agreed to detail one of his "polio experts," who was then on survey work Long Island, Dr. J. W. Babcock, who reported for duty and began the work of exam nation on September 12.

Every effort was made to include in this examination all children in the villa under 18 years of age. To this end the medical officers were provided with offic lists of the names and addresses of the families of all the soldiers and civilian employe with the number of children in each, while the town authorities furnished Dr. Babco with the necessary information in regard to the children of the civilians. It is believ that not more than 2 or 3 per cent of children escaped examination. In regard to t scope of the physical examination, it was made with sufficient thoroughness to ru out the possibility of an existing poliomyelitis.

The work was completed in about three weeks and the results testify to the ca and thoroughness with which it was done. The report of Capt. Tasker (mention under special work of medical officers) includes an analysis of all the cases of infanti paralysis, both military and civil, with statistical information in regard to t medical survey.

On October 14, one month after the onset of the last case in Highland Falls, the arantine restrictions in regard to adults were removed, and on November 15 children re allowed free access to and from the reservation.

The freedom of this garrison from infantile paralysis was not entirely due to good ck, for every town in the vicinity of West Point was more or less infected from early July to October, including Fort Montgomery, Cornwall, Newburgh, Peekskill, rrison, Cold Spring, and Fishkill. Three controlling factors were, in my opinion, tive in excluding the disease from West Point: First, and most important, pro- biting children under 16 from passing back and forth off and on the reservation: is measure excluded the prime sources of infection; second, the restriction of travel and from West Point to persons having official business only, thus minimizing the nger from carriers; and third, the thorough medical survey of Highland Falls which de it possible to identify practically every case of infantile paralysis, and thus able us to take the necessary precautions against the spread of the disease.

The surgeon sums up his remarks on this subject by offering the llowing as the policy which should govern in the adoption of regu- tions for the protection of the garrison at West Point and by which ey were guided in their extensive investigation:

Poliomyelitis is a transmissible disease caused by a specific virus which is present the nose, mouth, and bowel discharges of patients suffering from the disease and so in the nose and throat of healthy associates of poliomyelitis cases, i. e., healthy rriers.

Poliomyelitis is exclusively a human disease, spread either by direct personal ntact or indirectly by means of contaminated food and drink.

The incubation period of the disease is usually less than two weeks, and probably the great majority of cases between three and eight days. Ordinarily the virus es not persist in the body longer than four or five weeks, except in those rare cases that come chronic carriers; hence cases of infantile paralysis which have been kept der supervision for a period of six weeks from the onset of symptoms may be regarded practically free from danger (Flexner).

Carriers are persons, either adults or children who have recovered from an acute tack of infantile paralysis or who have come into contact with the disease in its ute stages (Emerson). It is not believed that a person may become a carrier by ere association with another carrier. "The difficulty in controlling poliomyelitis s in the large number of healthy carriers who are the sources of infection in nearly l cases" (Regulations California State board of health).

"Missed cases" are probably exceedingly common on account of the prevalence ring an epidemic of abortive cases where no paralysis is present; such cases may tnumber those of frank paralysis.

Poliomyelitis is a disease of early childhood. Of 7,500 cases occurring in New ork City, 10 per cent were under 1 year, 85 per cent were under 6 years, and all but 7 per cent under 16 years.

ALASKA.

The mean strength of the troops, officers and enlisted men, servin in Alaska during the past year was 770, as compared with 787 i 1915. This force consisted of Infantry, Signal Corps, and Hospit Corps, all white. Alaska still remains the healthiest region in whic the Army is stationed.

The admission rate for all causes was 338.96 per 1,000 in 1916, compared with 378.65 in 1915. The rate for disease was 241. per 1,000, and that for external causes 97.40, as compared wit 292.24 and 86.40, respectively, in 1915. The corresponding rat for the United States were, for total causes 733.29 per 1,000; th for disease being 604.30, and that for external causes, 128.98. T diseases having the highest admission rates are shown in the fo lowing tabulation:

Admission rates for some of the principal diseases for Alaska. American troops, offic and enlisted men.

	Total officers and enlisted men.		Enlisted men.	
	1916	1915	1916	1915
Venereal diseases	19.48	24.31	20.13	35.
Tonsillitis	19.48	25.41	18.79	26.
Gastritis, acute and chronic	16.88	2.54	17.45	2.
Bronchitis	11.69	30.49	12.08	28.
Pharyngitis	10.39	12.71	10.74	13.
Appendicitis	10.39	6.35	10.74	[illegible]
Alcoholism (all)	9.09	10.17	9.40	10.
Rheumatism, muscular	6.49	15.25	6.71	15.
Influenza	5.19	8.89	5.37	[illegible]
Diarrhea and enteritis	5.19	7.62	5.37	7.
Constipation	3.90	2.54	4.03	[illegible]
Mental alienation	2.60	10.17	2.68	10.
Rheumatism, articular (all)	1.30	5.08	1.34	5.
Synovitis	1.30	2.54	1.34	[illegible]
Tuberculosis (all)	1.30	1.27	....	1.
Malarial fevers	....	1.27	....	1.
All causes	338.96	378.65	344.97	386.

The noneffective rate was 9.01 per 1,000 in 1916, as compared wit 8.71 in 1915. The rate for disease was 6.23 and for external caus 2.77 per 1,000.

The diseases causing the highest noneffective rates are shown low.

neffective rates for some of the principal diseases for Alaska. American troops, officers and enlisted men.

	Total officers and enlisted men.		Enlisted men.	
	1916	1915	1916	1915
pendicitis	0.77	0.39	0.80	0.40
iereal diseases	.70	.53	.72	.54
onchitis	.35	.37	.36	.34
isillitis	.35	.13	.35	.14
stritis	.18	.02	.19	.02
eumatism	.17	.33	.18	.34
ntal alienation	.12	.27	.13	.28
oholism (all)	.10	.08	.10	.08
irrhea and enteritis	.09	.04	.10	.04
luenza	.07	.13	.07	.14
aryngitis	.06	.07	.06	.07
istipation	.04	.03	.04	.03
eumatism, articular (all)	.02	.06	.03	.06
berculosis (all)	.02	.15		.15
iovitis	.01	.04	.01	.04
larial fevers		.01		.01
causes	9.01	8.71	9.23	8.91

The death rate in 1916 was 6.49 per 1,000, and in 1915 was 2.54. actual numbers 5 deaths occurred, 1 from disease and 4 from ternal causes.

The discharge rate, all for disease, in 1916, was 21.48 per 1,000, compared with 11.80 in 1915.

Tables Nos. 3 and 76 give general figures for all enlisted men as mpared with those serving in other countries, and Table No. 73 r all officers and enlisted men, together with proportionate figures r disease and injury.

Enlisted men invalided home from Alaska, year 1916.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
at foot	4	25.00		4			1
ophthalmic goiter	2	12.50		1			
slocation of semilunar cartilage	2	12.50		2			
thritis, gonorrheal	1	6.25		1			
ronic alcoholism	1	6.25					1
nstitutional psychopathic state	1	6.25		1			
mnambulism	1	6.25		1			
ammering	1	6.25		1			
tigmatism	1	6.25	1				
itis, media, chronic	1	6.25	1				
acture, Colles's, with limitation of motion and deformity	1	6.25	1				
Total cases	16		3	11			2
rcentage of total cases		100.00	18.75	68.75			12.50

TABLE No. 27½.—*Influence of station, Alaska, year 1916, on officers and enlisted men.*

Stations.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admission to sick report.		Discharge on certificate of disability.		Deaths.		Total losses.		Noneffective rate.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		For each soldier.	For each case.	For each soldier.	For each case
										Total.	In hospital.	Total.	In hospital.				
Fort Gibbon	210	485.71	304.76	24.39	14.63	14.29	....	38.68	14.63	8.96	7.78	4.18	....	3.28	6.75	1.53	5.02
Fort Wm. H. Seward	223	417.04	291.48	46.73	42.06	4.48	4.48	51.21	46.54	14.43	14.18	10.59	....	5.28	12.67	3.87	13.29
Fort St. Michael	71	366.20	183.10	....	....	....	....	....	....	9.66	9.62	4.31	....	3.54	9.65	1.58	8.62
Fairbanks	7	285.71	....	....	....	....	....	....	....	15.22	14.83	....	....	5.57	19.50	....	....
Fort Liscum	96	229.17	156.25	10.64	10.64	....	....	10.64	10.64	6.40	5.21	4.72	....	2.34	10.23	1.73	11.07
Fort Davis	104	144.23	57.69	....	....	9.62	....	9.62	....	4.10.	2.08	1.81	....	1.50	10.40	.66	11.50
Valdez	59	16.95	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total officers and enlisted men	770	338.96	211.69	21.48	17.45	6.49	1.30	27.97	18.75	9.01	8.18	5.44	....	3.30	9.72	1.99	9.40
Total enlisted men	745	344.97	214.77	21.48	17.45	6.71	1.34	28.19	18.79	9.23	8.45	5.54	....	3.38	9.79	2.03	9.44

PHILIPPINE ISLANDS.

AMERICAN TROOPS (ENLISTED MEN.)

By reference to the figures furnished below it will be noted that a ght improvement in the health of the American troops serving in e Philippine Islands resulted during 1916 when compared with the ures for 1915. While the rate for venereal diseases (all) compared vorably with the admission rate for 1915, these diseases still remain matter of concern. The admission rate for malarial fever has taken slight drop compared with the rate prevailing for that disease ring 1915, being 63.12 for the latter and 62.95 per 1,000 for 1916.

The mean strength of the enlisted American troops stationed in e Philippine Islands for the year was 11,580 (S. G. O.). Of this mber 10,635 were white and 945 colored. The statistics for the ilippine Scouts, of whom there were 5,579, will be given separately.

ADMISSION RATES.

During the year there were 9,711 case admissions for all causes, ite and colored troops, making a case admission rate of 838.60 r 1,000, as compared with 117.21 case admissions and a case mission rate of 990.45 per 1,000 for 1915, 877.69 for 1914, and 2.06 for 1913.

The case admission rate for disese only was 714.42 for 1916, 1.05 for 1915, 746.61 for 1914, and 776.28 for 1913.

The case admission rate for white troops for all causes was 808.93 as compared with 1172.49 for colored troops, the later having a ean strength of 945 during the year.

The case admission rate for injuries for white troops was 105.88 r 1,000 as compared with 330.16 per 1,000 for colored troops, d for the total American troops, white and colored, 124.18 per 000, the lowest rate for several years.

CONSTANTLY NONEFFECTIVE RATES.

The total constantly noneffective rate for the year was 27.88 per 000: that for white troops being 26.87 and for the colored, 39.29.

The total noneffective rates for disease only in 1916 was 23.81 r 1,000, as compared with 23.33 for white troops and 29.27 for lored. The rates for 1915 were 25.42, 24.62, 31.73, per 1,000, spectively.

DISCHARGE ON CERTIFICATE OF DISABILITY.

The American soldiers are very rarely discharged in the Philippine lands, being invalided home and discharged in the United States; owever, those so discharged are credited to the Philippines. Table o. 28 shows the diseases for which these discharges were made.

The discharged rate for 1916 was 14.42 per 1,000 as compare with the corresponding rate of 23.22 for 1915. The rate for diseas was only 13.13 per 1,000, and that for injury. 1.30, as compare with the corresponding rates of 22.04 and 1.18 for 1915. The tot rates for the white troops was 15.23 as compared with 5.29 p 1,000 for the colored troops.

The disease causing the highest number of discharges were: Ment alienation, with a rate of 3.28; tuberculosis, 2.25; flat foot, 1.9 and venereal diseases, 1.21. The corresponding rates for the Unite States were 2.65, 1.94, 1.42, and 1.63 per 1,000, respectively.

TABLE NO. 28.—*Discharges for disability, American troops in the Philippine Islan year 1916.*

Cause of discharge.	Number discharged.	Percentage of discharges for disability for disease.	Discharged for disability.				
			In line of duty.	Not in line of duty.		Discharged f disability be fore assignme	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not line dut
DISEASES.							
Diseases of the nervous system and organs of special sense	50	32.90	8	42			
Diseases of the nervous system	49	32.24	8	41			
Mental alienation	38	25.00	3	35			
Dementia precox	31	20.39	3	28			
Defective mental development	4	2.63		4			
Constitutional psycopethic state	3	1.97		3			
Epilepsy	4	2.63		4			
Neurasthenia	4	2.63	3	1			
All others of the order	3	1.97	2	1			
Diseases of the eye	1	.66					
Astigmatism	1	.66		1			
General diseases	46	30.26	29	8	9		
Tuberculosis	26	17.11	25	1			
Of the lungs	25	16.45	24	1			
Lymphadenitis	1	.66	1				
Venereal diseases	14	9.21	1	4	9		
Syphilis	7	4.61		4	3		
Tertiary	5	3.29		4	1		
Secondary	2	1.32			2		
Gonococcus infection	7	4.61	1		6		
Arthritis	5	3.29			5		
Eye	1	.66	1				
Prostatitis	1	.66			1		
Exophthalmic goiter	3	1.97	1	2			
Articular rheumatism, chronic	2	1.32	2				
Alcoholism, chronic	1	.66		1			
Diseases of the bones and organs of locomotion	33	21.71	9	24		1	
Flat foot	22	14.47	1	21			
Diseases of the joints	6	3.95	6				
Synovitis	4	2.63	4				
Arthritis	2	1.32	2				
Hammer toe	2	1.32		2			
All others	3	1.97	2	1		1	
Diseases of the digestive system	8	5.26	6	2			
Peritoneal adhesions following operations	3	1.97	3				
Enteroptosis	1	.66		1			
Gastritis, chronic	1	.66		1			
Hernia, inguinal	1	.66	1				
Sprue	1	.66	1				
Abscess of liver	1	.66	1				
Diseases of the circulatory system	6	3.95	2	4			
Organic heart disease	5	3.29	1	4			
Valvular disease	4	2.63		4			
Endocarditis, chronic	1	.66	1				
Varicose veins	1	.66	1				

ABLE No. 28. *Discharges for disability. American troops in the Philippine Islands, year 1916*—Continued.

Cause of discharge.	Number discharged.	Percentage of discharges for disability for disease.	Discharged for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability before assignment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
iseases of the genito-urinary system	3	1.97		3			
Nephritis, chronic, parenchymatous	2	1.32		2			
Enuresis	1	.66		1			
iseases of the skin and its annexia	3	1.97	2	1			
Painful cicatrix	2	1.32	1	1			
Pelivsis rheumatica	1	.66	1				
iseases of the respiratory system	2	1.32	2				
Pleurisy, chronic, fibrinous	1	.66	1				
Asthma	1	.66	1				
ongenital malformations	1	.66		1			
Total for diseases	152	100.00	58	85	9	1	1
EXTERNAL CAUSES.							
ractures	6	40.00	5		1		
econdary results of injuries	4	26.67		4			
acerated wounds	2	13.33	2				
iscolations	1	6.67	1				
prains	1	6.67	1				
ontusion	1	6.67	1				
Total for external causes	15	100.00	10	4	1		
otal for disease	152	91.02	58	85	9	1	1
otal for external causes	15	8.98	10	4	1		
Grand total	167	100.00	68	89	10	1	1

DEATHS.

Deaths occurring in the United States in the persons of those inralided home from the Philippine Islands are credited to that station.

There were 52 deaths among the American troops, officers and enisted men, during the year 1916, all of which were enlisted, white nd colored: 32 from disease and 20 from injury, the total death ate being 4.48 per 1,000. The figures here given are taken from Table No. 29 and are for officers and enlisted men. The figures lightly differ from those given in Table No. 72 at the back of the eport, which are for enlisted men only. The total death rate, offiers and enlisted men, for 1915 was 2.87 per 1,000; that for disease eing 1.59 and for injury 1.29 per 1,000. There were 4 deaths from lrowning in 1916, as compared with 3 in 1915. There were 6 suicides n 1916, as against 6 in 1915.

Tuberculosis caused 11 deaths in 1916 and 6 in 1915; dysentery, 1 n 1916 and 2 in 1915; alcoholism, no deaths in 1916 and none in 1915.

PREVALENCE OF SPECIAL DISEASES, AMERICAN TROOP (ENLISTED MEN).

TYPHOID FEVER.

None occurred in 1916, or in 1915 and 1914.

MALARIAL FEVERS.

The admission rate for all fevers of this class was 62.95 per 1,00 as compared with 63.12 in 1915 and 45.26 in 1914. The rates f American and native troops are shown graphically in charts X and

By reference to Table No. 31 it will be seen that Camp Stotse burg had the highest admission rate for American garrisons, 178.5 per 1,000, as compared with 121.18 in 1915. Camp Eldridge la year stood in fourth place, this year has advanced to No. 3. Fo Mills, which was No. 2 on the list in 1915, now takes the same plac with a rate for 1916 of 58.85, compared with 88.48 per 1,000 in 191 In this connection it should be noted that the posts garrisoned wit native troops have considerably higher admission rates than thos garrisoned with American troops.

TABLE NO. 31.—*Malarial fevers, year 1916, compared with year 1915, for stations in t Philippine Islands.*

Posts.	Ratio per 1,000 of mea strength.	
	1916	1915
Principally of American troops:		
Camp Stotsenburg	178.54	121.
Fort Mills	58.85	88.
Camp Eldridge	29.89	32.
Fort William McKinley	28.32	17.
Camp McGrath	14.58	12.
Cuartel de Espana	8.85	10.
Regan Barracks	8.73	37.
Fort Santiago and headquarters of Philippine Department	8.06	27.
Principally of Philippine Scouts:		
Augur Barracks	87.70	57.
Camp Nichols	44.25	26.
Camp Overton	40.09	110.
Ludlow Barracks	36.48	213.
Pettit Barracks	31.58	62.
Warwick Barracks	27.84	21.
Camp John Hay	15.93	13.
Fort San Pedro	11.83	56.
Camp Keithley	10.44	43.

UNDETERMINED FEVERS.

The admission rate for these fevers during 1916 was 5.22 per 1,000, compared with 4.31 in 1915, 4.39 in 1914, and 5.27 in 1913. The ious diagnoses under this head are:

nission rates, Philippine Islands, American troops, and enlisted men, per 1,000 of ean strength, for undetermined fevers in 1916, compared with years 1913 to 1916, iclusive.

	1916	1915	1914	1913
ricula	71	27	24	9
ers, simple, continued, and type undetermined	22	63	44	50
Total[1]	93	90	[illegible]	59
io per 1,000 of mean strength	5.22	4.31	4.39	5.27

[1] Total for 1916 includes officers and natives.

The diagnoses given above are for officers and enlisted men, Ameri- troops, and Philippine Scouts.

SMALLPOX AND VARIOLOID.

No cases occurred in the islands.

VENEREAL DISEASES.

Notwithstanding vigorous efforts made by the authorities and the rying out of the provisions of G. O. 31, 1913, and G. O. 45, 1915, nereal diseases still hold first place for both admission and non- ective rates. Of the total admissions for the year over one-fifth re due to venereal diseases. There were 415 admissions for philis, 409 for chancroid, and 1,067 for gonorrhea. Of the total neffective rate for disease, 23.81 per 1,000 venereal diseases alone ntributed a rate of 7.77 during 1916 as compared with 8.10 in 1915. The following tabulation shows the admission rates and their uses for the enlisted personnel serving in the Philippines during 16:

Venereal diseases, Philippine Islands (enlisted men).

	Syphilis.	Chancroid.	Gonorrhea.	Total venereal.
ite troops:				
1916	36.48	35.64	83.78	155.90
1915	37.93	38.79	100.35	177.08
red troops:				
1916	28.57	31.75	186.24	246.56
1915	62.64	32.06	164.05	258.76
American troops (enlisted):				
1916	35.84	35.32	92.14	163.30
1915	40.73	38.02	107.57	186.32

TABLE No. 32.—*Venereal diseases among officers and enlisted men at posts in the Phili pines having strength of more than 300 men, year 1916.*

Posts.	Admissions.		
	Total.	Ratios.	Mean strengt
Principally American troops:			
Regan Barracks	252	439. 79	
Camp Eldridge	90	244. 57	
Camp Stotsenburg	381	185. 85	2,
Cuartel de Espana	137	173. 20	
Fort William McKinley	502	165. 29	3,
Camp McGrath	103	125. 15	
Fort Mills	369	82. 26	4,
Principally Philippine Scouts:			
Fort San Pedro	29	85. 80	
Warwick Barracks	25	53. 54	
Augur Barracks	46	49. 19	
Camp John Hay	20	35. 40	
Ludlow Barracks	20	21. 46	
Pettit Barracks	7	14. 74	
Camp Keithley	5	5. 80	
Camp Overton	2	4. 45	

CHOLERA.

Five cases of cholera reported among the American troops durin 1916.

TUBERCULOSIS.

Fifty-one cases of tuberculosis occurred among American troop making a ratio of 4.40 per 1,000. Forty-nine cases were transferr to the United States. Of the 11 deaths reported 9 occurred in t cases invalided home. In 1915 there were 76 cases of this diseas with an admission rate of 6.42 per 1,000, with 6 deaths.

BERIBERI.

No cases occurred among American troops.

DYSENTERY.

A marked increase in the incidence of this disease is noted for 191 but 139 cases occurring with an admission rate of 12 per 1,000, compared with 63 cases with a ratio of 5.32 in 1915. Of the 1 cases reported, 6 were bacillary, 123 entamoebic, and 10 cases u classified. The entamoebic dysentery gives an admission rate 10.62 per 1,000.

The noneffective rate for dysentery (all) was 0.79 per 1,000 f 1916, as compared with 0.31 for 1915.

DENGUE.

This disease, which appeared in epidemic form at seven posts in islands in 1915, and had the second highest admission rate as ll as the second highest noneffective rate, this year has dropped to 26 and 0.20 per 1,000 respectively, as compared with 131.31 and 4 per 1,000, respectively, in 1915. One hundred and forty-two es in all were reported during the year 1916. No discharges and deaths resulted in this number of cases.

MENTAL ALIENATION.

There were 50 admissions for mental alienation in 1916, with an mission rate of 4.32 per 1,000. In the United States the rate was 8 per 1,000. In 1915 the rates were 7.27 for American troops in Philippine Islands and 3.04 in the United States.

DIARRHEA AND ENTERITIS.

A marked increase over 1915 is noted in the cases of this disease, ng 609 in 1916 as compared with 449 in 1915. The admission rate r 1,000 in 1916 was 52.59; in 1915 it was 37.94; in 1914, 63.10; d in 1913, 67.48.

The noneffective rate for 1916 was 0.63 as compared with 0.51 r 1,000 in 1915, being a slight improvement over the rate for 1914, en it was 0.91.

TYPHUS FEVER.

No cases of this disease occurred among the American troops. cases were reported in the native troops from Camp Keithley. ere last year three cases were reported.

INVALIDING TO THE UNITED STATES.

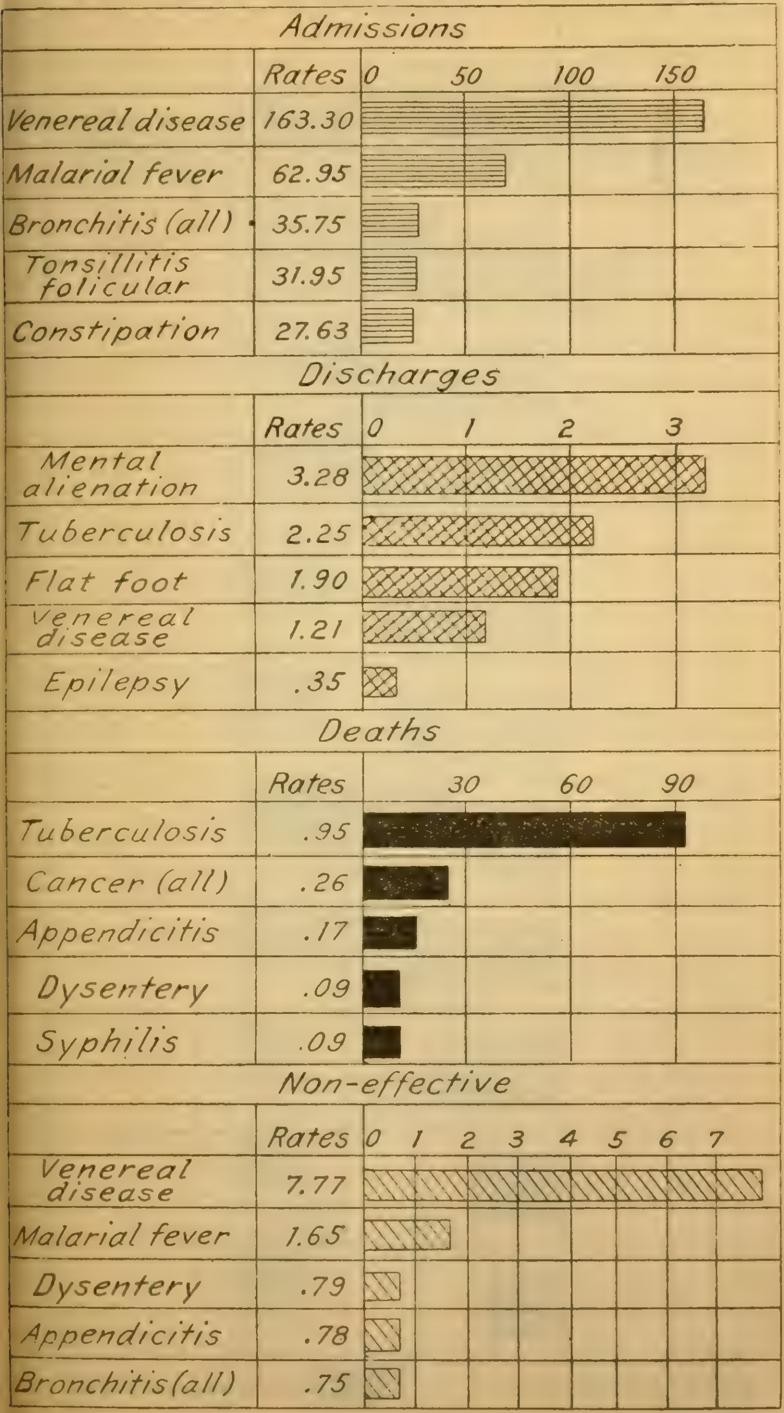
The disease causing the highest number of men to be invalided me were, with actual numbers: Mental alienation, 50; tuberculosis, ; flat foot, 26; neurasthenia, 13; pleurisy, 11; and syphilis, 10.

TABLE No. 33.—*Enlisted men invalided home from the Philippine Islands, year*

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.
Mental alienation (defective mental development, 5; dementia precox, 38; psychosis manic depression, 2; other forms, 5)	50	16.45	....	31	....	....
Tuberculosis (pulmonary, 46; of organs, 3)	49	16.12	1	12	7	4
Flat foot	26	8.55	2	16	....	....
Neurasthenia	13	4.28	2	3	....	....
Pleurisy	11	3.62	6	1	....	....
Syphilis	10	3.29	1	6	....	2
Chronic bronchitis	10	3.29	3	....	....	1
Gonorrhea and results	9	2.96	....	6	....	....
Chronic nephritis	9	2.96	2	4	1	....
Fracture	9	2.96	1	4	....	1
Dysentery	8	2.63	3	....	....	....
Chronic alcoholism	8	2.63	3	2	....	2
Organic disease of the heart	8	2.63	....	6	....	....
Epilepsy	5	1.64	....	4	....	....
Malaria	4	1.32	3	....	....	....
Astigmatism	4	1.32	2	1	....	....
Enuresis	4	1.32	....	3	....	....
Synovitis	4	1.32	....	3	....	....
Secondary results of injury	4	1.32	....	3	....	....
Neuritis	3	.99	2	....	....	....
Other diseases of the skin	3	.99	....	2	....	....
Bunion	3	.99	2	1	....	....
Lacerated wound	3	.99	....	3	....	....
Cancer	2	.66	1	....	1	....
Exophthalmic goiter	2	.66	....	2	....	....
Hysteria	2	.66	....	1	....	....
Asthma	2	.66	....	1	....	....
Chronic gastritis	2	.66	1	1	....	....
Adhesions, peritoneal	2	.66	....	2	....	....
Pyelitis	2	.66	1	....	....	....
Ulcer	2	.66	....	....	....	1
Periostitis	2	.66	1	....	....	....
Ankylosis	2	.66	....	1	....	....
Hammer toe	2	.66	....	2	....	....
Congenital malformation	2	.66	....	1	....	1
Undiagnosed	2	.66	1	....	....	1
Sprain	2	.66	....	1	....	1
Chancroidal bubo	1	.33	1	....	....	....
Locomotor ataxia	1	.33	....	....	....	....
Multiple spinal sclerosis	1	.33	....	....	....	....
Neurosis, traumatic	1	.33	....	1	....	....
Choroiditis	1	.33	....	1	....	....
Lyomphadenia	1	.33	1	....	....	....
Pneumonia	1	.33	....	1	....	....
Chronic colitis	1	.33	....	....	....	....
Inguinal hernia	1	.33	....	1	....	....
Sprue	1	.33	....	1	....	....
Cystitis	1	.33	....	....	....	....
Chronic eczema	1	.33	....	....	....	....
Psoriasis	1	.33	....	....	....	....
Arthritis	1	.33	....	1	....	....
Muscular rheumatism	1	.33	....	....	....	1
Tenosynovitis	1	.33	....	1	....	....
Partial paralysis forearm, following incised wound	1	.33	1	....	....	....
Dislocation of shoulder	1	.33	....	1	....	....
Contusion	1	.33	....	1	....	....
Total cases	304	....	41	132	9	15
Percentage of total cases	....	100.00	13.49	43.42	2.96	4.93

Chart W.—Philippine Islands. American enlisted men.

Admission, discharge, death, and noneffective rates for diseases having highest rates, year 1916.]



Admissions	Rates
Venereal disease	163.30
Malarial fever	62.95
Bronchitis (all)	35.75
Tonsillitis folicular	31.95
Constipation	27.63

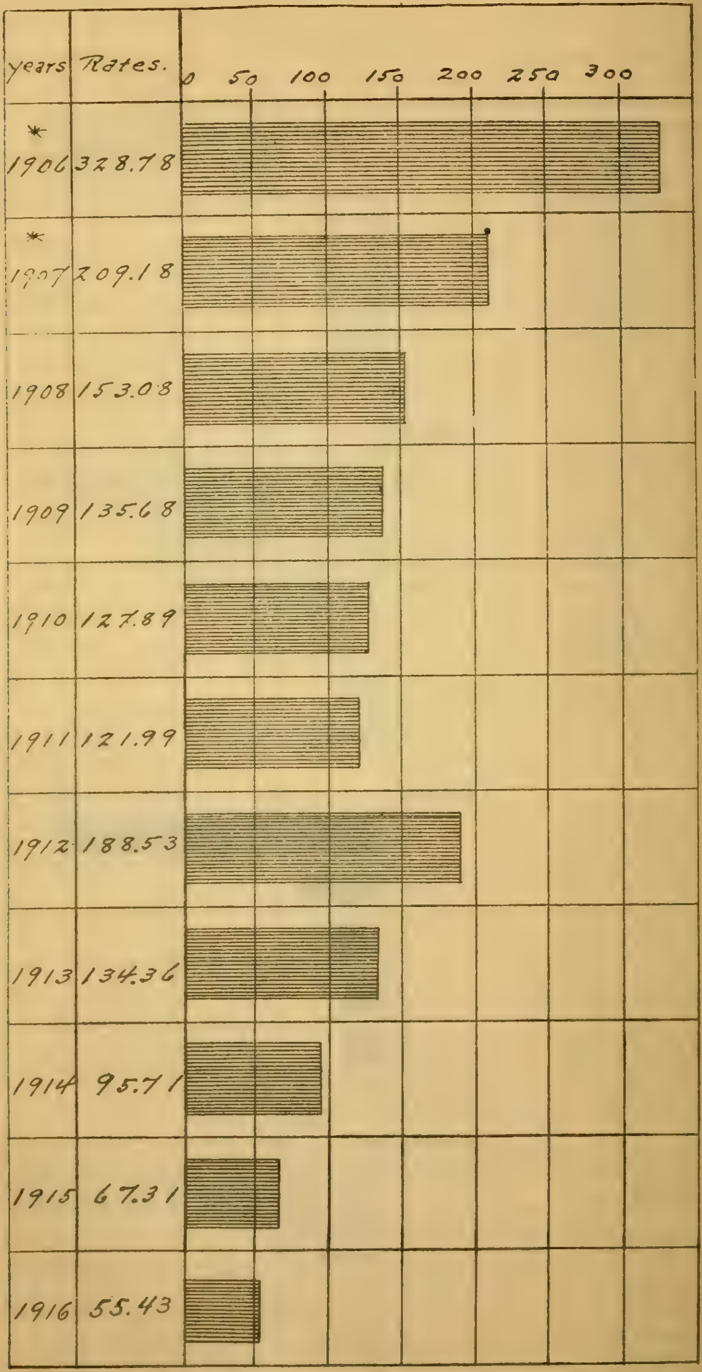
Discharges	Rates
Mental alienation	3.28
Tuberculosis	2.25
Flat foot	1.90
Venereal disease	1.21
Epilepsy	.35

Deaths	Rates
Tuberculosis	.95
Cancer (all)	.26
Appendicitis	.17
Dysentery	.09
Syphilis	.09

Non-effective	Rates
Venereal disease	7.77
Malarial fever	1.65
Dysentery	.79
Appendicitis	.78
Bronchitis (all)	.75

Chart X.—Philippine Islands. Officers and American and native troops.

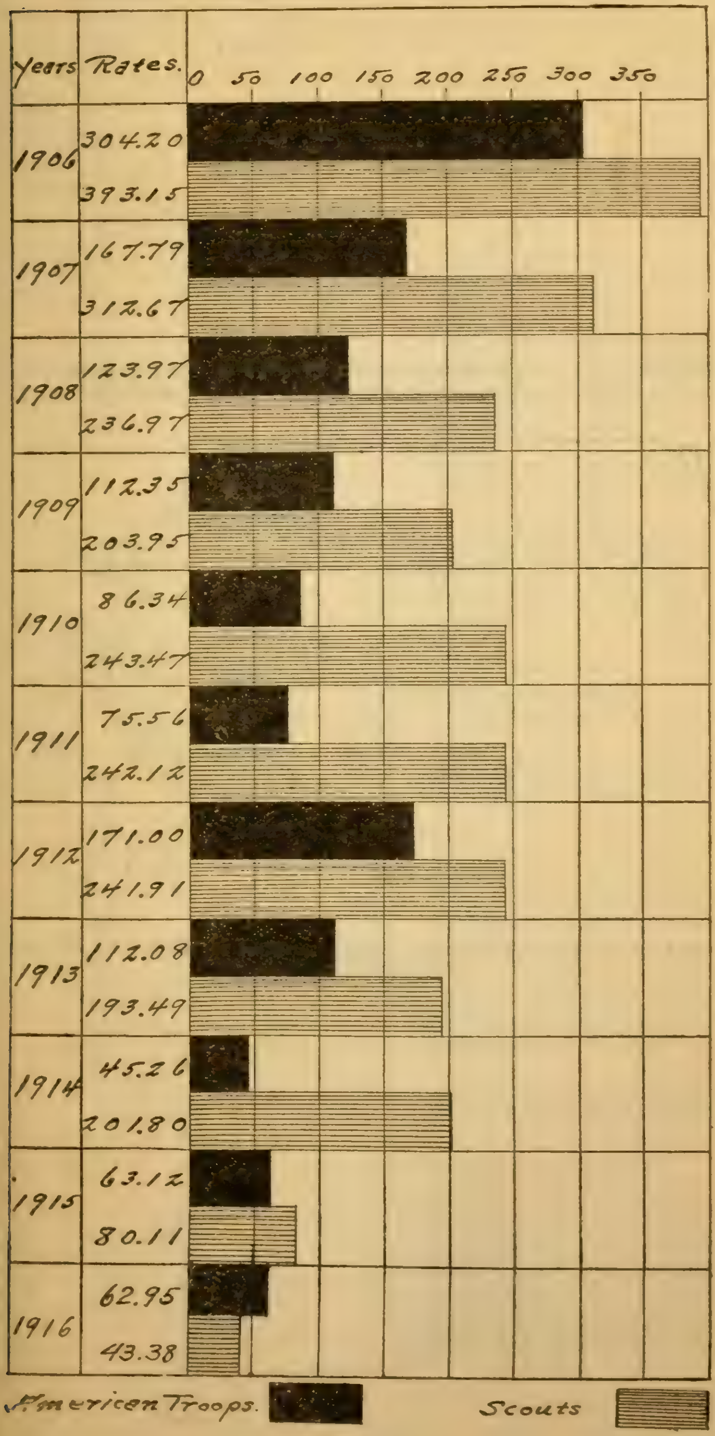
[Admission rates for malarial fevers, years 1906 to 1916.]



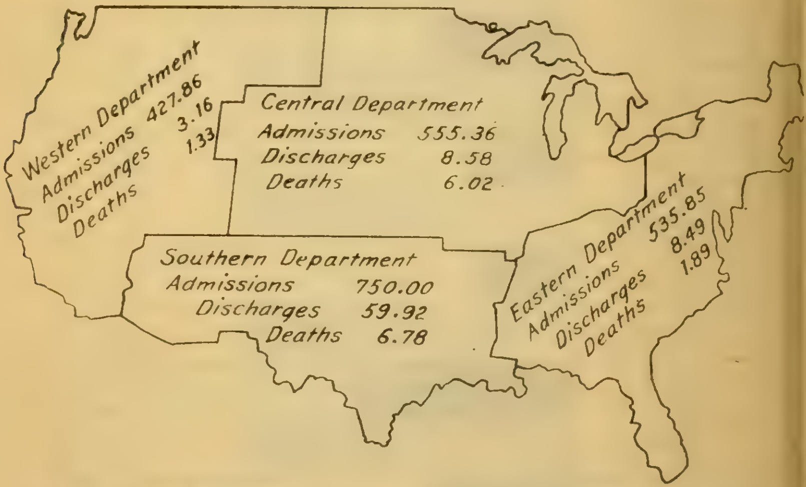
* Enlisted men * Officers not included.

Chart Y.—Philippine Islands. American and native enlisted men.

[Comparison of admission rates for malarial fevers, years 1906 to 1916.]



Military departments, United States continental (excluding Alaska), showing the relat admission, discharge, and death rates for disease, officers and enlisted men, year 1915.



NOTE.—Above figures do not include general hospitals, recruit depots, independent stations, and tr on Mexican Border.

total strength of over 200 officers and enlisted men, year 1916.

Posts in order of highest admission rates from all causes.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		For each soldier.	For each case.	For each soldier.	For each case.
										Total.	In hospital.	Total.	In hospital.				
Principally American troops:																	
Camp Stotsenburg	2,050	1,133.17	691.22	10.66	7.61	4.39	3.41	15.05	11.02	35.18	34.09	19.93	......	12.88	11.36	7.30	10.55
Camp Eldridge	368	1,084.24	671.20	19.77	19.77	8.15	5.43	27.92	25.20	34.64	33.14	17.44	......	12.68	11.69	6.38	9.51
Regan Barracks	573	924.96	403.14	7.18	5.39	6.98	......	14.16	5.39	22.89	21.50	9.94	......	8.38	9.06	3.64	9.03
Fort William McKinley	3,037	856.77	552.52	9.53	8.17	5.60	2.96	15.13	11.13	19.86	19.45	9.75	......	7.27	8.48	3.57	6.46
Cuartel de Espana	791	850.82	541.09	18.45	15.81	1.26	1.26	19.71	17.07	2.90	2.90	1.52	......	1.06	1.25	.56	1.03
Camp McGrath	823	703.52	470.23	18.80	13.78	......	......	18.80	13.78	24.96	24.32	14.73	......	9.14	12.99	5.39	11.46
Fort Mills	4,486	568.21	413.51	17.96	15.19	4.01	2.67	21.97	17.86	16.72	16.56	9.86	......	6.12	10.77	3.61	8.72
Fort Santiago	248	435.48	274.19	4.03	4.03	......	......	4.03	4.03	1.12	1.17	.78	......	.41	.94	.29	1.04
Principally Philippine Scouts:																	
Fort San Pedro	338	834.32	597.63	12.31	6.15	......	......	12.31	6.15	21.18	19.86	16.18	......	7.75	9.29	5.92	9.91
Camp John Hay	565	649.56	504.42	7.35	3.68	1.77	......	9.12	3.68	29.86	27.97	22.77	......	10.93	16.83	8.33	16.52
Augur Barracks	935	620.32	475.94	6.67	6.67	6.42	6.42	13.09	13.09	23.18	22.22	15.90	......	8.48	13.67	5.82	12.23
Warwick Barracks	467	599.57	468.95	4.45	4.45	......	......	4.45	4.45	14.52	13.41	11.51	......	5.31	8.86	4.21	8.99
Camp Overton	449	501.11	398.66	6.96	4.64	......	......	6.96	4.64	9.49	9.12	7.14	......	3.47	6.93	2.61	6.56
Ludlow Barracks	932	429.18	322.96	6.68	5.57	1.07	1.07	7.75	6.64	7.99	7.74	5.79	......	2.93	6.82	2.12	6.56
Camp Keithley	862	412.99	339.91	6.03	4.83	2.32	1.16	8.35	5.99	10.89	10.49	8.77	......	3.99	9.65	3.21	9.45
Pettit Barracks	475	298.95	208.42	6.58	6.58	......	......	6.58	6.58	10.55	10.44	6.65	......	3.86	12.92	2.43	11.68

TABLE NO. 36—*Influence of disease on enlisted American troops by arms of ser serving in the Philippine Islands, year 1916.*

Arms of service.	Mean strength.	Admitted for disease.	Discharged on certificate of disability.	Died.	Constantly noneffective.	Ratio per 1,000 of mean stren Admitted.	Discharged on certificate of disability.	Died.
Infantry	4,854	3,607	74	9	121.73	743.10	15.25	1.85
Cavalry	2,036	1,556	12	7	49.12	764.24	5.89	3.44
Coast Artillery	2,113	1,191	31	5	39.97	563.65	14.67	2.37
Field Artillery	878	899	12	2	33.60	1,023.92	13.67	2.28
Engineers	298	228	7	1	6.78	765.10	23.49	3.36
Ordnance	86	32	....	....	.99	372.09	....	....
Signal Corps	177	87	....	....	2.12	491.52	....	....
Hospital Corps	593	364	9	6	11.62	613.83	15.18	10.12
All others	545	309	7	2	9.82	566.97	12.84	3.67
Total	11,580	8,273	152	32	275.74	714.42	13.13	2.76

Periodic prevalence of epidemic diseases and pneumonia in the Philippine Islands; the number of gunshot cases by months.

Year.	Typhoid. No. 1. Cases.	Typhoid. No. 1. Deaths.	Paratyphoid. No. 2. Cases.	Paratyphoid. No. 2. Deaths.	Smallpox. No. 12. Cases.	Smallpox. No. 12. Deaths.	Measles. No. 14. Cases.	Measles. No. 14. Deaths.	Diphtheria. No. 17. Cases.	Diphtheria. No. 17. Deaths.	Cerebrospinal meningitis. No. 108. Cases.	Cerebrospinal meningitis. No. 108. Deaths.	Pneumonia. No. 208. Cases.	Pneumonia. No. 208. Deaths.	Gu sh wou No. Cases.
1916.															
January	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....
February	....	....	....	....	....	....	2	....	2	....	1	1	....	....	3
March	....	....	....	....	....	....	1	....	....	....	....	....	4	....	2
April	....	....	....	....	6	1	2	....	....	....	1	1	4	....	1
May	....	....	....	....	....	....	5	....	....	....	....	....	3	....	8
June	....	....	....	....	....	....	1	....	....	....	1	....	2	....	2
July	....	....	....	....	1	....	1	....	....	....	....	....	....	....	2
August	....	....	....	....	1	....	....	....	....	....	....	....	....	....	2
September	....	....	....	....	....	....	2	....	....	....	....	....	3	....	3
October	....	....	....	....	....	....	1	....	1	....	....	....	3	1	....
November	....	....	....	....	....	....	....	....	....	....	....	....	[illegible]	....	3
December	....	....	....	....	1	....	2	....	....	....	....	....	....	....	4
Total	....	....	....	....	9	1	18	....	3	....	3	2	22	1	30

PHILIPPINE SCOUTS.

The health of the troops (native) in the Philippines for the year 16 was very good, being a marked improvement over that for the ar 1915. The mean strength of these troops during the year was 579, as compared with 5,505 during 1915.

ADMISSIONS.

During the year there were 2,690 admissions for all causes, with a se admission rate of 482.17 per 1,000, as compared with 3,159 adissions and a case admission rate of 573.84 per 1,000 for the year 15.

The rate for disease for 1916 was 407.06 and that for injury 75.10 r 1,000, as compared with 482.65 for disease and 91.19 for injury in 15.

The following tabulation gives the admission rates for some of the incipal dieases in 1916 as compared with the year 1915:

dmission rates for some of the principal diseases among Philippine Scouts, years 1915 and 1916 compared.

	1916	1915		1916	1915
larial fevers	43.38	80.11	Dengue	11.12	16.71
onchitis	33.52	28.52	Dysentery	4.84	9.99
arrhea and enteritis	29.93	37.60	Tuberculosis (all)	3.05	4.54
nereal diseases	29.93	34.33	Ankylostomiasis	2.87	9.45

CONSTANTLY NONEFFECTIVE RATES.

The constantly noneffective rate for 1916 was 14.58 per 1,000, as mpared with 15.68 in 1915. The rate for disease was 12.43 per 000 in 1916 and 13.31 in 1915, while that for external causes was 14 per 1,000 in 1916 and 2.37 in 1915.

The following tabulation shows the noneffective rates for the rincipal dieases in 1916 as compared with 1915:

oneffective rates for some of the principal diseases among Philippine Scouts, years 1915 and 1916 compared.

	1916	1915		1916	1915
nereal diseases	1.79	1.96	Diarrhea and enteritis	0.33	0.45
larial fevers	1.14	1.54	Dysentery	.22	.56
onchitis	.74	.48	Mumps	.22	.17
ute abscess and cellulitis	.64	1.05	Rheumatism, articular	.16	.03
runcle and carbuncle	.42	.48	Ankylostomiasis	.06	.19
berculosis (all)	.36	.58			

From the comparisons afforded by these tabulations it is not that venereal diseases, which last year (1915) showed such mark improvement, during 1916 shows a slight improvement over 191 although still leading the list with the highest noneffective rate. T rate has been heretofore, with the exception of 1915, but a fracti of that for American troops in the Philippines, and the disastro results attending the development of a high rate for venereal diseas would be obvious. The most marked improvement is to be noted the admission rate for malarial fevers, being a reduction from 80 in 1915 over 43.38 in 1916. The rate for dengue shows a slight c crease for 1916 over that for 1915, yet the noneffectiveness from t disease is so small as to preclude its entry in the tabulation for t principal diseases. Diarrhea and enteritis show a slightly decreas admission and noneffective rate over that for 1915.

TABLE NO. 37.—*Movement of sick, Philippine Scouts, enlisted men, year 1916.*

	From all causes.		Excludi injuries, nereal d eases, v cinia, a alcoholis
	Total.	In hospital.	Total
Ratio per 1,000 of mean strength:			
Admissions to sick report	482.17	469.26	37
Discharges on certificate of disability	6.99		[illegible]
Deaths	2.69		[illegible]
Total losses	9.68		[illegible]
Noneffective	14.58	14.33	[illegible]
Average number of days lost:			
For each soldier	5.34	5.24	[illegible]
For each case	11.06	11.17	[illegible]

DISCHARGE FOR DISABILITY.

During the year 1916 there were 39 discharges from all causes a decrease from 1915 of 24. Of this number 36 were for disease d 3 for injury, making a discharge rate of 6.99 per 1,000. Tub culosis, the same as last year, is the cause of the greatest num of discharges, there being 16 discharges during 1916. Mental alie tion caused 4, leprosy 2, and neuritis none. In 1915 tubercul caused 25 discharges, mental alienation 16, and leprosy 2.

TABLE NO. 38.—*Causes of discharge for disability, Philippine Scouts, year 1916.*

Causes of discharge.	Number discharged.	Percentage of discharges for disease.	In line of duty.	Not in line of duty.	
				Contracted before enlistment.	Contracted after enlistment.
berculosis, pulmonary, chronic	16	44.44	16		
ntal alienation (dementia precox)	4	11.11		4	
prosy	2	5.56	2		
ariasis	2	5.56	1	1	
thritis, gonorrheal	2	5.56			2
tic neuritis	1	2.78			
philis, tertiary	1	2.78			1
tis	1	2.78	1		
itis media	1	2.78	1		
lvular heart disease	1	2.78	1		
uinal hernia	1	2.78	1		
scess of the liver	1	2.78	1		
llulitis	1	2.78	1		
novitis	1	2.78	1		
afness, partial, both ears	1	2.78	1		
Total for disease	36	100.00	28	5	3
acture	2	66.67	2		
rain	1	33.33	1		
Total for external causes	3	100.00	3		
tal for disease	36	92.31	28	5	3
tal for injury	3	7.69	3		
Grand total	39	100.00	31	5	3

DEATHS.

There were 15 deaths from all causes during 1916, with a rate 2.69 per 1,000, and 14 with a rate of 2.54 in 1915. Tuberculosis, hich causes the greatest number of deaths, for 1916 only had 1 eath, while in 1915 it did not appear among the diseases given. here was 1 death from homicide and 1 from suicide.

TABLE NO. 39.—*Causes of death among Philippine Scouts, year 1916.*

Causes of death.	Number of deaths.	Ratio per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
nallpox	1	0.18	76.92
siatic cholera	1	.18	76.92
uberculosis	1	.18	76.92
ncer	3	.54	230.77
pidemic cerebrospinal meningitis	2	.36	153.85
rdiac dilatation	1	.18	76.92
neumonia (lobar)	1	.18	76.92
ngestion of lung	2	.36	153.85
phritis, acute	1	.18	76.92
Total for disease	13	2.33	1,000.00
EXTERNAL CAUSES.			
icide, by firearms	1	.18	500.00
omicide by cutting or piercing instruments	1	.18	500.00
Total for external causes	2	.36	1,000.00
otal for disease	13	2.33	866.67
otal for external causes	2	.36	133.33
Grand total	15	2.69	1,000.00

SPECIAL DISEASES.

TYPHOID FEVER.

There were no cases of this disease among the Philippine Scou

MALARIAL FEVERS.

The admission rate for all fevers of this class was 43.38 per 1,00 as compared with 80.11 in 1915 and 201.80 in 1914. This rate the lowest in the history of the Philippine Islands, an evidence the persistent and vigorous antimosquito campaign that is bei waged. Certain posts in the Philippines, however—notably Can Stotsenburg, Pampanga—continue to show high admission rates f malaria. This post is not properly screened, in spite of repeat recommendations. The same statement is true of other Army pos The relation of mosquitoes and other insects to disease incidence now so well known that to deter the matter of complete screeni of all quarters in the Army is inexcusable. "Lack of funds" "insufficient appropriations" for this important work should longer be accepted and the responsibility for this serious def definitely placed.

TYPHUS FEVER.

There were no cases of this disease among native troops at Ca Keithley, Mindanao, where last year 3 cases existed among t scouts.

VENEREAL DISEASES.

These diseases furnish an admission rate of 29.93 per 1,000, compared with 34.33 in 1915, a marked reduction. Of a total 167 admissions, 27 were for syphilis, 13 for chancroid, and 127 gonorrhea, as compared with 31, 17, 141, respectively, for 19 The noneffective rate for all venereal diseases was 1.79, as compa with 1.96 per 1,000 in 1915.

SMALLPOX.

Nine cases occurred during the year.

CHOLERA.

Two cases of this disease occurred during the year, with 1 dea

TUBERCULOSIS.

There were 17 cases of this disease, with an admission rate of 3 per 1,000, as compared with 25 cases and an admission rate of 4 in 1915. There was 1 death, 16 being discharged.

DYSENTERIES.

Twenty-seven admissions for this disease during the year, of which
mber 13 were classed as bacillary, 10 as entamoebic, and 4 unclassi-
d. The rate for this disease was 4.84, as compared with 9.99 for
15. The noneffective rate was 0.22 per 1,000.

DENGUE.

Dengue, or "breakbone fever," is an acute disease of tropical and
btropical countries, characterized by severe pains in the muscles
d joints and by an eruption similar to measles. The mortality is
actically nil. It has been demonstrated that it is transmitted by
e *Culex fatigans* species of mosquito.

Sixty-two cases of this disease occurred among the native troops,
th an admission rate of 11.12 per 1,000, and a noneffective rate of
26. There were no deaths.

DIARRHEA AND ENTERITIS.

One hundred and sixty-seven cases occurred, making an admis-
n rate of 29.93 per 1,000, as compared wtih a rate of 37.60 in
15. The noneffective rate was 0.33.

ALCOHOLISM AND ITS RESULTS.

Six admissions are recorded for this disability, the admission rate
ing 1.08 per 1,000.

BERIBERI.

Two cases of this disease occurred among the Scouts during the
ar, the admission rate being 0.36.

UNDETERMINED FEVERS.

There were 32 cases of undetermined fevers during the year.
nder this heading are included febricula, simple, continued, and
her fevers of undetermined causation. The admission rate was
74 per 1,000, as compared with 5.81 in 1915.

The following table exhibits the various surgical operations performed on the Philippine Scouts during the year:

TABLE No. 40.—*Surgical operations performed on Philippine Scouts during the calend year 1916.*

Operation.	Disease or injury.	Cases.	Result.		Anesthetic.			
			Successful.	Died.	Chloroform.	Ether.	Local.	
	EYE.							
Transplantation, 1; resection of pterygium and suture, 1.	Pterygium	2	2	....	....	....	2	
Incision curetment and cauterization	Sebaceous cyst	1	1	....	....	....	1	
	EAR.							
Scarification and suture	Laceration and perforation of ear	14	14	....	....	....	14	
	MOUTH AND PHARYNX.							
Tonsillectomy	Hypertrophy of tonsil	1	1				1	
Incision and drainage	Peritonsillar abscess	2	2	....	....	....	1	
	NECK AND THORAX.							
Paracentesis	Pleurisy	2	2	....	....	....	2	
Aspiration, 2; thoracostomy and drainage, 1.	Empyema	3	3	....	....	1	1	
Dissection	Discharging sinus chest wall	1	1	....	....	1	....	
	ABDOMEN.							
Bassini's operation	Inguinal hernia	3	3	....	....	3	....	
Appendectomy	Appendicitis	4	4	....	....	4	....	
Enterectomy with end to end anastomosis.	Fistula following ruptured appendix.	1	1	....	....	1	....	
Incision and drainage	Cyst, pancreatic	1	1	....	....	1	....	
Incision into cavity and removal of stone.	After operation for cyst, pancreatic	1	1	....	....	1	....	
Laparotomy exploratory	Lympho-sarcoma of liver	1	....	1	....	1	....	
Do	Abdominal tuberculosis	1	1	....	....	1	....	
	ANUS AND RECTUM.							
Incision and drainage	Ischiorectal abscess	1	1	....	....	....	1	
Partial division of sphincter	Fistula in ano	1	1	....	....	1	....	
Excision and suture, 1; clamp and ligation, 1; ligation and excision, 4.	Hemorrhoids	6	6	....	....	5	1	
Excision	Papillomata, circumanal	1	1	....	....	1	....	
	GENITO-URINARY SYSTEM.							
Epididymotomy	Epididymitis	1	1	....	1	....	....	
Andrew's operation, 1. excision of sac, 1.	Hydrocele	2	2	....	....	2	....	
Incision and drainage	Abscess, periurethral	1	1	....	....	....	1	
Excision	Cyst, meatus	1	1	....	....	....	1	
Circumcision	Phimosis	2	2	....	....	....	2	
Dissection	Adherent prepuce	1	1	....	....	....	1	
	VASCULAR SYSTEM.							
Ligation and excision	Varicose veins	1	1	....	....	1	....	
	SKIN AND CELLULAR TISSUE.							
Incision and curetment, 1; incision and drainage, 57.	Abscess	58	58	....	....	3	36	19
Incision and drainage	Carbuncle	5	5	....	....	....	4	1
Incision and drainage, 20; incision and curetment, 1.	Cellulitis	21	21	....	1	1	19	
Excision, 2; partial excision, 4; avulsion, 1.	Ingrowing toenails	7	7	....	....	....	6	1
Incision and cauterization	Painful scar	1	1	....	....	....	....	1
	LYMPHATIC SYSTEM.							
Excision of gland	Lymphadenitis (filarial)	1	1	....	....	1	....	
Incision and drainage	Adenitis venereal	4	4	....	....	....	3	1
Do	Adenitis, nonvenereal	10	10	....	....	....	7	3

BLE No. 40.—*Surgical operations performed on Philippine Scouts during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result. Successful.	Result. Died.	Anesthetic. Chloroform.	Anesthetic. Ether.	Anesthetic. Local.	Anesthetic. None.
	MUSCLE, TENDONS, LIGAMENTS, FASCIA, AND BURSAE.							
sion and drainage	Myositis	2	2	....	....	1	1	....
orrhaphy	Severed tendon	1	1	....	....	....	....	1
ration and partial excision	Ganglion	1	1	....	....	....	1	....
	BONES.							
isplantation of bone from ster- um.	Defect of skull from old fracture	1	1	....	....	1	....	....
ction articular end of bone and traction of bullet.	Gunshot wound, shattering lower end of humerus.	1	1	....	....	1	....	....
sion and drainage, and posterior lint.	Fracture, compound tibia, and fibula.	1	1	....	....	1	....	....
gments freshened and wired	Nonunion, compound fracture of tibia.	1	1	....	....	1	....	....
noval of detached spicula	Gunshot wound, metatarsal	1	1	....	....	1	....	....
sion and curetment	Osteomyelitis, phalanx toe	1	1	....	....	1	....	....
	JOINTS.							
sion and drainage	Synovitis, shoulder	1	1	....	....	1	....	....
Do.	Arthritis, site not stated	1	1	....	....	....	1	....
king of adhesions	Adhesions following incision at shoulder joint.	1	1	....	....	1	....	....
	AMPUTATIONS.							
putation of finger	Contusion and laceration	1	1	....	....	....	1	....
Do.	Gunshot wound	2	2	....	....	1	1	....
putation of toe	Gangrene following lacerated wound.	1	1	....	....	1	....	....
	TUMORS.							
ision	Fibroma	4	4	....	....	1	3	....
Do.	Lipoma	1	1	....	....	....	1	....
Do.	Sebaceous cyst	3	3	....	....	....	3	....
	MISCELLANEOUS OPERATIONS.							
sion and drainage	Infected wound	3	3	....	....	....	3	....
sion and suture	Lacerated wound	6	6	....	....	....	....	6
	Incised wound	3	3	....	....	....	....	3
	Punctured wound	1	1	....	....	....	....	1
Total number of cases		201	200	1	2	41	119	39

PREVALENCE OF DISEASES, BY RACES.

With the exceptions of diarrhea and enteritis, furunculosis, malaria,
njunctivitis, trichophytosis, dysentery, and intestinal parasites, the
es for the Philippine Scouts were all lower than for either the white
colored American troops. It should be borne in mind that the
tive troops are serving in their own country under conditions natu-
to them, to which American troops are not accustomed.

The rates for the American white and colored troops and scou are compared in the following tabulation:

Comparison of general rates for American white and colored troops and scouts, year 191

	White.	Colored.	Scouts.
Admission rate	749.59	713.90	482
Noneffective rate	39.17	32.03	14
Death rate	5.05	7.73	2
Discharge rate	16.19	22.12	6

TABLE NO. 42.—*Important diseases by races, Philippine Islands, year 1916.*

Diseases.	Admission rates.					
	White troops.		Colored troops.		Philippine Scouts.	
	1916	1915	1916	1915	1916	191
Venereal	155.91	105.81	246.56	136.30	29.94	34
Malaria	60.74	15.90	87.83	7.75	43.38	5
Diarrhea and enteritis	49.65	31.87	85.72	26.19	29.93	37
Bronchitis (all)	37.05	35.06	21.16	35.87	33.52	2
Tonsilitis (all)	29.62	67.24	58.20	32.91	5.02	7
Alcoholism	16.27	14.34	9.52	6.89	1.08	
Appendicitis	13.45	8.84	7.41	7.24	2.15	
Dengue	12.88	14.06	5.29	68.75	11.12	16
Dysentery	11.94	2.06	12.70	.52	4.84	
Influenza	11.38	35.06	....	22.40	3.76	
Furunculosis	9.22	17.01	13.76	8.62	18.10	1
Hemorrhoids	7.05	5.53	15.87	10.86	1.25	
Conjunctivitis	4.33	4.04	4.23	5.51	13.08	1
Articular rheumatism (acute and chronic)	4.23	4.94	....	3.27	3.41	
Trichophytosis	4.14	3.98	26.46	3.62	8.07	
Intestinal parasites	2.35	1.05	1.06	.69	1.43	
Tuberculosis	.85	3.44	3.17	4.65	3.05	
Pneumonia (lobar)	.66	2.34	....	3.45	2.69	

SANITATION IN THE PHILIPPINE ISLANDS.

The department surgeon, Philippine Department, reports as lows:

The admission rate was 7.75 per 1,000 of strength as against 9.31 in 1915; the non-ective rate was 24.33 as against 25.8, and this decrease in both the admission rate l constantly noneffective was due to dengue, venereal diseases, and malaria. e admission rate for dengue was reduced from 90.1 in 1915 to 11.3; venereal diseases m 184.7 to 160.5, and malaria from 65.6 to 54.8 per 1,000.

Prevalence of Special Diseases.

VENEREAL.

There were 3,079 cases of venereal diseases admitted, of which 2,274 were new es and 805 were readmissions of those previously admitted for the same disease. While venereal disease continues to be the most frequent cause of admission on k report, it will be noticed that the admission rate per 1,000 has made a steady line (with exception of 1913), as shown by the following figures:

1	231.7	1914	167.4
2	202.1	1915	184.7
3	124.1	1916	160.5

The admission rate per 1,000 for this disease at the principal American posts was as ows:

Admission rates per 1,000.

Station.	1915	1916	Station.	1915	1916
atsin, China	596.4	378.6	Camp Stotsenburg	238.8	230.3
gan Barracks	434.5	593.3	Cuartel de Espana	226.2	201.8
np Eldridge	369.9	325.1	Fort William McKinley	203.0	197.8
np McGrath	246.9	168.9	Fort Mills	124.0	99.2

The question of the control of venereal disease apparently depends to a large extent the zeal with which the authorities, both line and medical, enforce the regulations ating to these diseases. It is believed that when a command has an excessive nereal record that it will be found that in other respects discipline is lacking.

The extent to which venereal disease may invade a command is shown by the ort of the surgeon at Camp Eldridge, in which it is shown that when a battalion the Thirty-first Infantry reported there from duty at Regan Barracks, 120 of the nmand of 382 men had venereal disease, and after a syphilitic survey, 108 of the nmand showed syphilis.

Since this battalion has been at Camp Eldridge, the number of new cases of venereal ease has been very small.

MALARIA.

The malaria situation continues to show great improvement, the admission rate 1,000 being 54.8 per 1,000 against 65.6 per 1,000 in 1915, 93.9 in 1914, 125.4 in 13, and 188 in 1912. The rate per 1,000 for 1916 was the lowest since American upation.

Admission rates per 1,000.

Station.	1915	1916	Station.	1915	1916
Ludlow Barracks	220.4	38.6	Camp Eldridge	27.5	27
Camp Stotsenburg	135.4	186.9	Warwick Barracks	25.9	[illegible]
Fort Mills	88.9	61.3	China Expedition	24.3	9
Pettit Barracks	58.9	40.2	Fort William McKinley	17.5	29
Augur Barracks	57.5	96.3	Camp John Hay	13.1	14
Fort San Pedro	56.4	11.8	Camp McGrath	12.4	1
Camp Keithley	41.3	12.8	Cuartel de Espana	11.4	[illegible]
Regan Barracks	30.3	15.3			

The increase at Augur Barracks was largely due to disease being epidemic at th station during the month of February, 34 cases (total cases for the year, 90) bei reported in that month.

Malaria became epidemic at Camp Stotsenburg in March and December, the being 77 and 54 cases, respectively, a total of 131. Total cases for the year from th station were 383.

These rates can be improved, and will be, as all the posts are screened. This wo of screening is very gradually being done by the Quartermaster Department. T post of Camp Stotsenburg is only partially screened at present. Augur Barracks, Jolo, another malarial station, is only two-thirds screened.

Antimalarial measures, which are under the direct control of the Medical Depa ment, are very carefully carried out at all posts.

DENGUE.

The admission rate for this disease has been reduced from 90.1 in 1915 to 11.3 p 1,000. There was an actual reduction of 1,523 cases. Total of cases admitted in 19 was 1,740; in 1916, 217.

DYSENTERY, AMŒBIC AND BACILLARY.

The total admissions in the department for 1916 were 170 as against 122 for 19 an increase of 48 cases or 8.8 per 1,000 as against 6.3 for 1915.

This is largely due to the great increase in admissions for this disease at Ca McGrath, where the disease has been endemic during the past year, there being actual increase of 36 admissions over the figures for 1915 (41 in 1916 against 5 for 191 all entamœbic.

DIPHTHERIA.

Only one case reported during the year, an American white at Fort Mills duri October.

Three cases of this disease occurred in the family of an officer residing in Man during August (wife and two small children), which were isolated at the departm hospital. All made uneventful recovery.

Two cases of carriers (both colored) were isolated under canvas at Camp Stots burg during February, one of whom was returned to duty the following month negati for diphtheria bacilli.

The other case (S. & W. card 28070, Camp Stotsenburg, February, 1916) persists giving a positive reaction for diphtheria bacilli, and shows no tendency to impro It is believed that the soldier is a permanent carrier and that the organism has habitat in the frontal sinus. Patient was transferred on December 7 to departm hospital, Manila, by motor ambulance, where he remains on the last day of the ye

SMALLPOX.

Nine cases, with one death, all among Philippine Scouts at Augur Barracks, which station this disease was epidemic from March to September, there being cases among the civilian population admitted to hospital during this period with deaths.

TYPHOID.

No case reported during the year.

PARATYPHOID.

)ne case occurred (American) in China expedition during October.

LEPROSY.

[wo cases were discovered among the Philippine Scouts at Fort Mills. Both were charged on certificate of disability and turned over to the civil authorities.

BERIBERI.

[here were two cases of beriberi; one at Augur Barracks and one at Pettit Barracks. th were Philippine Scouts.

SCARLET FEVER.

Vine cases, with one death, occurred during the year. All among American troops China.

CEREBROSPINAL MENINGITIS.

[hree cases appeared among native troops with two deaths, one at Fort Mills dur- February, and two at Augur Barracks during April and June. This disease has isted in epidemic form at Jolo in the vicinity of Augur Barracks among the native pulation.

CHOLERA.

ight cases of cholera occurred, 5 among Americans and 3 among Philippine Scouts. ly 1 death occurred, which was a native soldier who had contracted the disease ile on furlough in Manila from Camp Nichols. Patient was not treated in military spital. Cases occurred at the following stations: Camp Keithley, 1 scout in April; rt William McKinley, 1 American in July, 2 Americans in August, and 1 American September; Cuartel de Espana (from Estado Mayor), 1 American in September; mp Nichols, 1 scout in October, and Fort Mills, 1 scout in October.

holera has been quite prevalent during the year among the civil population oughout the entire archipelago, particularly so in Manila and immediate vicinity, ere cholera is believed to be due to a great number of cholera carriers who are ally harmless, but who become active sources of infection following errors in diet. e elimination of carriers from employees engaged in handling of water and food plies probably in some measure at least, accounts for the very few cases occurring nearby garrisons.

several cases occurred among the civilian native population of Fort Mills and Fort lliam McKinley.

SANITATION AND CONDITIONS AT INDIVIDUAL POSTS.

AUGUR BARRACKS, JOLO.

smallpox was epidemic from March 16 to September 30, and appeared again during cember. The surgeon reports:

"In order to understand the difficulty of controlling the epidemic it is necessary to te that there were 570 women and children (scouts' and quartermaster employees' nilies), and 120 quartermaster employees (packers and native employees) of whom re than half were living off the reservation in the town of Jolo and the adjacent rrios of Tulay and San Ramundo. Further, to realize the opposition to vaccina- n, particularly among the families of the two Moro companies, they in many stances were concealed or sent away to return only when sick with smallpox, or owing that they had been exposed. The epidemic started in the civil population; date is not known. The first case requiring military care was a quartermaster ployee (native) taken sick on March 16, 1916.

"A smallpox camp was established and all cases isolated; daily visits to all known mbers of scouts' families, and to organizations in which a case occurred were made. ccination was employed and revaccination to even the sixth time in some instances. ere were all grades of the disease seen, from the mildest to the most severe confluent morrhagic form which caused all of the deaths—except one child convalescent m a mild attack who died suddenly without cause; no autopsy. During the period ted 15 deaths occurred of which only one was a soldier."

The surgeon concludes as follows:

"As a result of the difficulties encountered in dealing with these civilian element so scattered throughout the towns, they have been brought into the reservation an will be comparatively easily controlled hereafter should any epidemic diseases appear.

He remarks as follows with reference to venereal diseases:

"Venereal diseases have at all times been prevalent but to no great extent. The have been treated in hospital during early stages (open lesions in syphilis, and unt discharge has greatly lessened in gonorrhea), continuing treatment under restrictio after return to duty. The usual prophylaxis has been employed to prevent infe tion and instruction given frequently in these subjects by medical officers."

This station shows an increase in admission rate for malaria, all due to diseas becoming epidemic during month of February after field service.

CAMP ELDRIDGE, LAGUNA.

There have been very few cases of malaria, the admission rate being slightly low than that for 1915.

The venereal rate for this station, while lower than that for 1915 (369.9 per 1,0 against 325.1 in 1916), will undoubtedly show a large increase for the coming yea due to this station inheriting the first battalion of the Thirty-first Infantry on Decen ber 29, 1916, from Regan Barracks. The surgeon remarks as follows:

"Until the arrival of the first battalion of the Thirty-first Infantry at this post December 29, 1916, there were no prevailing diseases. In this battalion there ar in a total enlisted strength of 382 men, 150 cases of active venereal disease und treatment; most of these men have been doing garrison duty, but many are at prese physically incapacitated for field service. The number of each variety of venere disease at present under observation and treatment is as follows: Syphilis, 80 case chancroids (unhealed), 46 cases; gonorrhea, acute and chronic, 15 cases; venere warts, 4 cases; buboes, suppurative, 5 cases; total, 150."

The special steps taken to control venereal disease as reported by the surgeon ar

"1. Treatment in hospital of all infectious syphilitic and acute gonorrheal cases.

"2. Restriction to limits of post of all other venereal diseases during infectious stag

"3. Maintenance of an excellent venereal prophylactic station, very accessib to houses of prostitution and open at all hours.

"4. Lectures by medical officers to command on personal sanitation.

"5. The investigation of the origin of all cases of venereal disease and subseque isolation of the infected woman.

"6. Institution of semimonthly inspection of all prostitutes in Los Banos by medi officers during the latter part of November, 1916. Prior to this a weekly inspecti of these women was made by the provincial health officer. He now makes two insp tions monthly.

"7. Semimonthly physical inspection of the entire command by medical office

"8. At present all cases of infectious venereal disease not in hospital are restricted the limits of post, required to report to the noncommissioned officer in charge of quart in each company every two hours. The military police on duty in the town of I Banos are furnished with a list of all those so restricted and have instructions from t post commander to arrest any such men found without the limits of the post."

CAMP JOHN HAY, BENGUET.

There are no malaria-carrying mosquitoes in the vicinity of this post. Only ei cases reported druing the year; all imported.

Venereal diseases are scarce, notwithstanding one company of American tro has been stationed at this post since February.

The surgeon reports:

"Venereal prophylaxis installed in hospital given any hour of day or night medical department attendant, who is carefully instructed in the administrat of same. Bimonthly physical inspections of the command, etc."

CAMP KEITHLEY, MINDANAO.

The surgeon reports all existing orders and regulations for venereal disease being complied with. This disease not sufficiently prevalent to warrant spe steps, only seven cases during the year.

The malaria rate was again reduced, the rate per 1,000 for 1916 being 12.8 aga 41.3 in 1915. The surgeon reports:

"For control of malaria all cases were thoroughly treated before final discharge, d all requirements on malarial register complied with; blood examinations made all suspicious cases; use of mosquito bars by all troops, and breeding places of osquitoes drained or oiled."

Chicken pox was prevalent in January, 12 cases being reported.

There has been an occasional case of dengue throughout the year, but not considered idemic.

Mosquitoes are fairly numerous coming from nearby swamps bordering Lake Lanao.

In regard to sanitary defects the surgeon reoprts as follows:

"As mentioned under this heading in last report, the principal sanitary defect has en the lack of quarters available for the families of enlisted men, Philippine Scouts, hich has resulted in overcrowding in many instances."

CAMP M'GRATH, BATANGAS.

The prevailing diseases were venereal and dysentery contracted in adjacent town Batangas.

The physical examination of the command, also the prostitutes, and isolation of fected cases of either, has been a great factor in again showing a material reduction the venereal rate, which was reduced from 246.9 per 1,000 in 1915 to 168.9 per 1,000 1916.

With regard to dysentery, the surgeon reports as follows:

"Investigation shows that the infection is brought into the garrison from the town of atangas or other outside sources, in evidence of which it is stated that the only case dysentery appearing in any of the officers' or noncommissioned officers' families that of a native servant admitted in September, 1916.

"The amœbic incidence is not confined to one organization, nor does it seem to ave a seasonal variation. This would seem to indicate that the etiological factors ere constantly present, but the entire command was not exposed, which opinion further strengthened by the absence of infection of the officers and noncommissioned ficers, and their wives and children, who have the same water and food supply as e rest of the garrison."

A carrier was detected in one company in the person of a cook. This company had ore admissions than any other for 1916.

Bacteriological examinations for amœbæ will be made at intervals.

CAMP STOTSENBURG, PAMPANGA.

Malaria and venereal continue to be the prevailing diseases.

With reference to malaria the surgeon reports as follows:

"This disease has at all times flourished at this post, and until the so-called scout st is abandoned the malaria incidence will be excessive. In spite of the active anti-osquito measures constantly practiced, the malaria rate has remained high, at one me reaching in the scout post 99 per 1,000 per month (March, 1916). Screening of e barracks and quarters, now under way but not completed, will tend to lower the te, but it will probably then remain excessively high. This is believed to be due the large number of malaria carriers among the native population at Sapang Bato and er whom the post authorities can exercise no control. The quartermaster corral is tuated directly across the creek from the barrio, and adjoining this corral there is a ntinuous line of cover through adjacent buildings, through which malaria-infected osquitos from Sapang Bato may travel to the barracks occupied by the first battlion Second Field Artillery. The records of this hospital show that the occupants these barracks have suffered continuously and excessively from malaria, and its ntinued high rate may be expected so long as the scout post continues to occupy s present location.

"Active antimosquito warfare is constantly waged. This includes searching for ater and moist spots, petrolization, the cutting and burning of grass and brush for considerable distance about post, the systematic examination of all natives before ithorizing their employment on post, the careful isolation and hospital treatment all malaria cases until they cease to be carriers."

Screening has now been authorized on all barracks and quarters and is well under ay.

The venereal rate for this station is a trifle lower than for the previous year. This roblem is partially solved at this station by the toleration of a so-called model arrio, situated about 1 mile south of the post, which is satisfactorily operated.

The Banban River supply is now being used for all purposes. Drinking water is oiled or filtered before use. A new artesian well has been bored and is awaiting istallation of machinery.

Plans and specifications are now being prepared for the construction of a ne hospital.

FORT MILLS, CORREGIDOR, AND SUBSTATIONS.

Malaria and venereal diseases have been prevalent during the year among th command, and malaria, skin, and eye diseases and intestinal parasites among th native population. There have occurred during the year two cases of leprosy amo Philippine Scouts (both discharged on surgeon's certificate of disability and turn over to civil authorities) and one case each of cerebrospinal meningitis (Philippi Scout), cholera (Philippine Scout), and diphtheria (American); also three cases cholera among the native civilians.

There has been a decided decrease in both the venereal and malarial rate. Th surgeon reports as follows:

"In the case of venereal diseases, in additional to the measures required by regul tions, steps have been taken as follows:

"Weekly examination of all known prostitutes in the vicinity. In the case malaria, aside from the usual preventative measures, i. e., screening of buildin use of mosquito nets, occasional use of quinine prophylactic, etc., two important mea ures are now under way—the clearing of underbrush and the routine survey of natives coming on or living on the island for blood infections. Native gamete carri are as a rule deported. Others are controlled by treatment or deported."

It is interesting to note that while this station had a mean strength of 4,487 duri the year (not to speak of a native barrio with a population of about 5,000, situated and around the island's port of entry) the command shows a greater continued mov ment for betterment than any post in the department, the average daily sick the year being 76; constantly noneffective per 1,000, 16; venereal rate reduced fr 124 per 1,000 in 1915 to 99.2 and malarial rate from 88.9 per 1,000 in 1915 to 61.3 1916.

FORT SAN PEDRO, ILOILO.

The surgeon reports skin, respiratory, and venereal diseases as prevailing duri the year.

Malarial rate has shown a decided reduction over the figures for 1915, being on 11.8 per 1,000 against 56.4 for 1915.

The surgeon states:

"All cases of venereal disease are treated at hospital. Chancroid cases return to duty when completely cured. Gonorrheal cases retained to hospital until d charge ceases, when they are returned to duty but kept on venereal list and requir to report daily for observation and treatment until cured. All cases of syphilis, wh danger of infecting others exists, are retained in hospital for observation and tre ment."

FORT WILLIAM M'KINLEY, RIZAL.

There has been nothing of interest except the six cases of Asiatic cholera, all which were contracted outside of the post. The cases of malaria which occurr have mostly been of extraneous origin. There were a number of cases among t enlisted personnel who were on topographical work near Aparri.

The sewage-disposal system which had given a great deal of trouble has been rem died by the installation of a new Imhoff septic tank, which seems to work satisf torily in every way.

LUDLOW BARRACKS, MINDANAO.

There has been no disease that could be called prevalent during the year. T admission rate per 1,000 for all disease was 438.

Malaria, which in former years caused the greatest number of admissions, h practically been eliminated, as shown by the admission rates of 791.3, 220.4, and 3 per 1,000 for the years 1914, 1915, and 1916.

The surgeon reports the same antimosquito measures in use as reported in the l annual report from this office, which have proven entirely satisfactory.

The usual measures employed in combating venereal diseases have contin effective, and the rate per 1,000 for this class of disease was 24.6.

The following report is made regarding sanitation at the post:

"Garbage, which prior to May, 1916, was dumped on the ground in the immedi vicinity of the post and an attempt made to burn it, is now being dumped into sea.

"Recommendations that the old guardhouse, which is located in the remains of old Spanish redoubt and is unfit for occupancy, be rebuilt or a new one construc ve been made, and money has already been asked for this purpose. It is expected t a new one will be built in the near future.

"The old system of disposal of human excreta has been replaced by water-flushed sets."

CITY OF MANILA.

The following stations are located within the city limits: Cuartel de Espana, Cuartel Infanteria, department hospital, Estado Mayor, Fort Santiago, medical supply pot, Manila ordnance depot, and quartermaster depot.

Cuartel de Espana, which normally had a garrison of one battalion of infantry, plus imental headquarters, now has two battalions, due to moving of white troops from mp Eldridge.

Cuartel de Infanteria has one company of Signal Corps.

Estado Mayor consists of two companies of Infantry.

Fort Santiago has been increased to two companies of Infantry as a headquarters rd.

The regular corps detachments are stationed at the medical supply depot, the lnance depot, and the quartermaster depot.

CUARTEL DE ESPANA.

Tonsillitis was common during early part of the rainy season. This was probably e to overcrowding during alterations in barracks at a time when infectious diseases the upper air passages were common in Manila.

A large number of cases are undergoing treatment for dhobie itch and an impetigoe eruption which as a rule readily responds to treatment and which does not incacitate for full duty.

The venereal diseases have been in fairly large numbers, particularly because the ation of the post in a city with opportunities for infection, and because the regiment made up largely of soldiers in their first enlistment. The rate, however, is lower n for the past two years, being 201.8 per 1,000 against 226.2 for 1915, and 203.4 for 14.

The new artesian well which was completed the latter part of 1915, the water of ich was intended for the use of the entire military population of Manila, was finally andoned as a frequent bacteriological examination of the water showed a contamition which finally led to the discontinuance of the water for drinking purposes. ce April all water for drinking and cooking purposes has been distilled by the artermaster distilling plant.

Disinfection of swimming pool with copper sulphate was instituted early in the year, d has been continued since. There have been no cases of infection traceable to use of the pool.

The present sanitary condition of the post is good except for the unavoidable dust d disturbance due to building construction which will probably be completed ly in the year.

FORT SANTIAGO.

There have been no prevailing diseases during the year.

A large civilian population of nearly 3,000, which includes the employees and famis of civilians employed in and around department headquarters, depot quarterster and land transport corral, are taken care of at this dispensary, and the surgeon orts as follows:

"In order to detect communicable diseases, monthly physical inspections of all ilians employed have been made. In this way several active cases of tuberculosis d syphilis have been eliminated. In order to protect against cholera and other instinal diseases, the various sources of drinking water are checked up by frequent cteriological examinations, and all civilians concerned in the handling of drinking ter or food products are examined to determine their freedom from cholera or other testinal infections."

DEPARTMENT HOSPITAL.

There were 1,143 cases transferred to the department hospital for treatment, namely, 52 American white, 34 American colored, and 57 Philippine Scouts. An average 102 patients was in hospital during the year, of which enlisted men and officers was and civilians 23.

Considering age and numerous repairs, the buildings are in fair condition. The sewage d drainage systems are defective in rainy weather, but could not be improved witht considerable expense.

The artesian well commenced in the last part of 1915 was finally completed on De cember 11, 1916, and is now being used. The bacteriological examinations made fro this well, extending over a period of two weeks, specimens being obtained daily fro the main of the well itself, and from the storage tank, show the water from the mai to contain an average of 300 colonies per cubic centimeter, and the water from the tan to contain an average of 1,200 colonies per cubic centimeter. Presumptive tests f the presence of *B. coli* were negative during all examinations. Practically no diffe ence was found to exist chemically between the water from the main and tank.

The bacterial work was done at the department laboratory by a first lieutenan Medical Corps.

PETTIT BARRACKS, MINDANAO.

There have been no prevailing diseases at the post. The admission rate per 1,0 continues to be the lowest in the department, being 316 against 427 for 1915. In t town of Zamboanga there have been some cases of typhoid fever, but no cases appear among the command.

Only 19 cases of malaria and 8 cases of venereal disease (1 of which was new) we reported during the year. The mean strength of the command was 472. The surge reports as follows:

"For control of venereal disease, existing War Department orders are careful carried out. Malaria cases are kept under treatment for 21 days following dischar from hospital, and four months later 21 days' treatment is continued."

Regarding sanitation it is stated:

"The barrio of Santa Barbara adjoining the post has been put under the joint cont of the civil and military authorities and its condition much improved. A sanita latrine was built by the local health authorities, and the daily police of the barrio under the direction of a sergeant of the line who reports daily to the surgeon. T scheme has worked out very satisfactorily, and great credit is due Gov. Frank C penter for his hearty cooperation in improving conditions immediately adjoining t post."

REGAN BARRACKS, ALBAY.

The venereal rate at this station, which was second only to China during the last ye has again increased and now is the highest in the department, being 593.3 per 1,0 against 434.5 for 1915.

The high rate reported by the surgeon is due to lack of cooperation on the part of t civil authorities in the control of prostitutes.

Special steps in controlling venereal diseases were:

"The venereal cases are restricted to the post and if they have failed to take the p phylaxis, are brought to trial by summary court-martial. Most of the cases are tak in the hospital for some time, and during this period lose their pay, with the idea impressing the seriousness of the disease. An effort was made to cooperate with t health authorities of the Province, with a view of having all infected prostitu confined until cured, but it has failed. The examination and laboratory work of t prostitutes was done by the surgeon free of charge. The health authorities claim after trial, that they, the prostitutes, could not be confined without due process of la and it is almost impossible to get any one to swear out a warrant."

This condition has been remedied by the removal of the American troops (the fi battalion of the Thirty-first Infantry) to Camp Eldridge, Laguna, during Decemb 1916, where conditions are much better.

The malaria rate is practically nil, only 13 cases appearing during the year, givi an admission rate of 15.3 per 1,000 against 30.3 in 1915. The usual antimosqu measures are carried out.

WARWICK BARRACKS, CEBU.

There was no disease present that could be called prevalent. Dengue, which h been endemic, has almost been entirely eliminated, only 30 cases appearing dur the year.

But little venereal disease has occurred at this post. The prescribed semimontl physical examination of enlisted men is performed, and every reasonable facilit given which might encourage the faithful use of the prophylactic system.

Malaria is not prevalent at this station, and except for imported cases, seems to nonexistent in Cebu. The usual antimosquito measures are, however, employed.

TIENTSIN, CHINA, AND SUBPOSTS OF CHINA EXPEDITION.

enereal disease continues to be the prevailing disease, although it is interesting ote that the rate per 1,000 has been cut almost in two. The rate per 1,000 for 1916 378 against 596.4 in 1915. The surgeon attributes this great improvement to e careful prophylaxis, and the continuance in hospital of all cases until no longer ctive. Considering local conditions, the results obtained are excellent.

he malaria rate has been very low, only 9.6 per 1,000 against 24.3 for 1915.

neumonia has been extremely fatal, but the cases have occurred in drinkers.

he troops are quartered in buildings constructed for commercial purposes, and e are not satisfactory, being crowded and not well ventilated. The removal of t soil and urine, which is done by coolies, is only a makeshift arrangement and es much to be desired.

ew buildings, to be rented for barracks and hospital, are now in course of conction, and will in a measure correct some of the defects of the present arrangement.

he health of the command has shown a great improvement during the past year, admission rate being reduced to 979 per 1,000 from 1,533 for 1915.

n conclusion, the department surgeon desires to say that the health of troops ioned in the Philippine Department has shown a decided inprovement over that revious years. The gradual abandonment of small posts, the concentration merican troops at posts in and around Manila; the fact that active operations on part of troops (both American and Philippine Scouts) have not been necessary he same extensive scale as in former years, the hearty cooperation of the civil orities (especially in regard to the cholera situation) have all tended to reduce morbidity rates in this department, as shown by the following tables:

Year.	Mean strength.	Admission rate.	Constantly noneffective per 1,000.
	18,041	1,389	46.5
	19,294	1,298	45.6
	17,069	1,259	40.2
	17,766	1,226	37.4
	19,197	1,130	37.0
	18,221	863	26.9
	16,954	865	28.0
	19,307	931	25.8
	19,172	775	24.3

ith the rate for malaria the lowest since American occupation, dengue practically inated from the causes of admission, venereal diseases (with exception of 1913) er than any year since 1911, alcoholism and tuberculosis also showing reductions r previous years, a result largely attributed to the zeal, efficiency, loyalty, and l of the medical officers who, with few exceptions, have displayed an energy and lligence that make them a credit to the Medical Corps of the Army, a gradual uction in all morbidity figures in the year to come can be looked for.

SPECIAL DISEASES.

he surgeon, Fort William McKinley, P. I., reports as follows:

uring July two enlisted men, members of Field Hospital Company No. 4, who e in contact with a cholera case in Santa Ana, were placed in isolation at hospital. e case of Asiatic cholera developed in the person of a private, first class. The ient progressed favorably.

he cases of cholera mentioned in previous reports made satisfactory recoveries l were returned to duty. Three new cases were admitted during September, as ows: One soldier from command, one civilian employed as a packer, and one native orer employed at the pumping station. The soldier and civilian packer are now valescent. The native laborer was transferred to San Lazaro, Manila, P. I.

ne case of Asiatic cholera admitted December 7, and died December 9, occurred a civilian, 60 years of age, employed in the Quartermaster Corps. The residence he cholera case was thoroughly disinfected and contacts isolated.

The department surgeon, Philippine Department, in a speci report on cholera, states:

> The situation in Bulacan Province, and especially in the town of Hagonoy, v recently rather acute, but this is clearing up. Iloilo is probably at present the m threatening point outside of Manila, which is now the point of greatest danger.
>
> The general situation is not alarming at present, but is one fraught with possibiliti The bureau of health and the office of the department surgeon are in close touch a are working in cooperation. The director of health being also the chief quaranti officer, the preceding remark is also applicable to the quarantine service.
>
> Cholera is epidemic at Nagasaki, Japan, although it is understood that this has been officially announced. All precautions are taken with reference to trans-Pac transports calling at that port en route to San Francisco, no passengers being allow to land, and all supplies which could possibly introduce infection on the ship be prohibited.
>
> All troop-class passengers are isolated for five days and examined as suspec carriers before embarkation on trans-Pacific transports, and first and second cl passengers are subjected to the usual examination.
>
> A campaign of examination of cooks, commissary employees, watermen, etc., being conducted. Recently a native quartermaster employee engaged in fill water coolers at department headquarters was found to be a cholera carrier, and v sent to San Lazaro Hospital.

HAWAII.

he mean enlisted strength of the troops serving in Hawaii during
year 1916 was 8,476, as compared with 8,572 during 1915. Of
se, 1,808 were colored. A remarkable feature in connection
h the rates for Hawaii in comparison with those for the United
tes is that while the total admission rate, noneffective, discharge,
death rates are lower, yet the individual rates for the preventable
ases are somewhat higher, especially that for venereal diseases.
average number of days' treatment for each case was 13.67, as
pared with 15.06 for the United States.

ADMISSION RATES.

he admission rate during 1916 was 514.51 for total enlisted men
1,000, as compared with 568.94 for 1915. The rate for disease
e was 405.50 per 1,000 and that for external causes 109.01.

CONSTANTLY NONEFFECTIVE RATES.

he constantly noneffective rate was 19.22 per 1,000 for all
ses in 1916, as compared with 20.44 for 1915. The rate for
ase was 15.31 and that for external causes 3.91 per 1,000, as
pared with 16.39 for disease and 4.04 for external causes in
5.

DISCHARGES ON CERTIFICATES OF DISABILITY.

he rate for discharge for disability was, for all causes, 15.57
1,000, 13.69 being for disease and 1.89 for external causes. In
5 the total rate was 10.92, that for disease being 9.79 and for
ernal causes 1.13 per 1,000.

DEATHS.

The death rate (total) was 4.84 per 1,000, that for disease being
5 and for external causes 3.19, as compared with a total rate of
4, 2.25 for disease and 0.79 for external causes per 1,000 in 1915.
actual numbers 41 deaths occurred among the enlisted personnel,
being due to disease and 27 to external causes. Nine of these
ths from external causes were due to suicide; 11 from drowning,
idental; 4 from homicide; and 3 from traumatism by fall.

TABLE No. 43.—*Influence of station on officers and enlisted men, Hawaiian Department, year 1916.*

Hawaiian Department.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharged on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, alcoholism and vaccinia.	
										From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Schofield Barracks	5,707	542.32	314.53	13.76	9.78	4.56	2.10	18.32	11.88	13.56	12.65	6.18	......	4.96	9.15	2.26	7.19
Fort Ruger	313	539.94	361.02	16.56	13.24	15.97	9.58	32.53	22.82	3.40	.22	1.62	......	1.24	2.30	.59	1.65
Fort Armstrong	108	453.70	296.30	9.52	9.52	....	....	9.52	9.52	.53	......	.48	......	.19	.43	.18	.59
Fort Shafter	1,687	410.79	238.29	24.48	21.42	4.74	....	29.22	21.42	1.06	.03	.78	......	.39	.94	.29	1.20
Fort De Russy	196	392.86	188.77	15.87	15.87	....	....	15.87	15.87	.99	.01	.26	......	.36	.92	.10	.51
Fort Kamehameha	559	341.68	177.10	13.01	11.15	3.58	....	16.59	11.15	1.09	......	.31	......	.40	1.17	.11	.64
Total officers and enlisted men	8,789	511.55	297.42	15.57	12.15	4.99	1.82	20.56	13.97	19.11	18.10	9.60	......	6.99	13.67	3.52	11.82
Total enlisted men	8,476	514.51	295.89	15.57	12.15	4.84	1.65	20.41	13.80	19.22	18.54	9.52	......	7.03	13.67	3.48	11.77

INVALIDING TO THE UNITED STATES.

1916 there were 145 cases invalided home, in 1915 there were , and in 1914 there were 141.

he diseases or conditions causing the highest number of cases to nvalided home were:

ental alienation, 37; tuberculosis, 25; syphilis, 10; fracture, 8; foot, 6; and 3 cases of enuresis.

Enlisted men invalided home from Hawaii, year 1916.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
al alienation(general paralysis of insane, 2; defective mental de- pment, 8; dementia precox, 19; er forms, 8)	37	25.52		24	[1] 2		11
rculosis (pulmonary, 23; of other ans, 2)	25	17.24		7	[1] 3		15
ilis	10	6.90	2	5		1	2
ure	8	5.52	1	7			
foot	6	4.14		6			
na	5	3.45	2				3
itis, gonorrheal	4	2.76	1	3			
ic disease of the heart	4	2.76		2			2
isy and results	4	2.76	1	2			1
hthalmic goiter	3	2.07		3			
psy	3	2.07		3			
esis	3	2.07		2			1
ic nephritis	3	2.07		1	1		1
eria	2	1.38		2			
asthenia	2	1.38		2			
ntary	2	1.38	1	1			
na	2	1.38	1	1			
r diseases of the bones	2	1.38		2			
ritis	2	1.38		2			
hot wound	2	1.38		1			1
dary results of injury	2	1.38	1	1			
nic alcoholism	1	.69					1
habit	1	.69		1			
iple neuritis	1	.69		1			
ose veins	1	.69		1			
r	1	.69		1			
nic bronchitis	1	.69	1				
nic colitis	1	.69					1
nic enteritis	1	.69		1			
nic dermatitis, cause undeter- ned	1	.69				1	
omyelitis	1	.69		1			
lysis of peroner muscles following ised wound	1	.69		1			
in of knee	1	.69		1			
matic neurosis, following cerebral cussion	1	.69		1			
rmity of fingers, following lacer- d wound	1	.69		1			
Total cases	145		11	87	5	2	39
entage of total cases		100.00	7.59	60.00	4.14	1.38	26.90

[1] Homicide, one each.

The following tabulation for enlisted man furnished a comparison general rates for Hawaii with the United States:

	Admission rate.		Noneffective rate.		Death rate.		Discharge rate.	
	1916	1915	1916	1915	1916	1915	1916	1915
aii	514.51	568.94	19.22	20.44	4.84	3.04	15.57	10.92
ted States	745.38	704.01	30.67	25.74	5.13	5.42	16.76	13.60

Tables Nos. 43 and 74 give figures for all troops serving in Hawa
The diseases causing the highest admission and noneffective rat
among officers and enlisted man are shown in the following tab
lations:

Admission rates for some of the principal diseases in the Hawaiian Department, Ameri troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted
	1916	1915	1916
Venereal diseases	94.78	95.76	98.17
Constipation	20.37	13.52	20.65
Bronchitis	18.87	29.63	18.53
Tonsilitis	13.31	19.83	13.33
Influenza	12.97	19.27	12.39
Cellulitis	12.52	6.76	12.74
Furuncle	12.06	14.08	12.39
Alcoholism	11.04	11.27	11.33
Gastritis, acute and chronic	9.11	7.89	8.61
Rheumatism, muscular	8.08	8.90	7.67
Hemorrhoids	8.76	6.20	8.85
Appendicitis	7.85	10.59	7.79
Flat foot	4.55	.79	4.72
Mental alienation	3.78	4.39	4.83
Lymphadenitis, nonvenereal	3.75	2.48	3.89
Diarrhea and enteritis	3.65	26.36	3.54
Tuberculosis	3.19	3.49	3.19
Rhinitis, acute	3.07	7.44	2.71
Malarial fevers	2.05	1.69	2.12
Enuresis	1.48	1.92	1.53
Rheumatism, articular, acute and chronic	1.14	3.27	1.18

Noneffective rates for some of the principal diseases in the Hawaiian Department, Ameri troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted
	1916	1915	1916
Venereal diseases	5.45	4.78	5.61
Appendicitis	.63	.71	.61
Mental alienation	.48	.36	.45
Cellulitis	.39	.13	.41
Bronchitis	.37	.57	.37
Tuberculosis	.29	.27	.29
Furuncle	.29	.22	.29
Tonsillitis, acute	.26	.37	.27
Flat foot	.24	.02	.25
Influenza	.23	.38	.21
Lymphadenitis, nonvenereal	.23	.14	.23
Constipation	.22	.13	.20
Hemorrhoids	.21	.19	.21
Alcoholism	.17	.17	.18
Rheumatism, muscular	.12	.18	.12
Gastritis, acute and chronic	.11	.13	.10
Malarial fevers	.05	.05	.06
Diarrhea and enteritis	.05	.38	.05
Rheumatism, articular, acute and chronic	.03	.22	.03
Rhinitis, acute	.03	.07	.03
Enuresis	.02	.23	.03

SPECIAL DISEASES.

TYPHOID FEVER.

Two cases were reported during the year 1916.

PARATYPHOID FEVER.

o cases of this disease occurred.

MALARIA.

ighteen cases were reported during the year.

SMALLPOX AND VARIOLOID.

one occurred.

MEASLES.

wenty-three cases occurred.

INFLUENZA.

ne hundred and fourteen cases reported with an admission rate of 7 per 1,000.

DYSENTERY.

hirty-three cases reported during the year.

BRONCHITIS.

his disease caused the lightest number of admissions, venereal ases excepted, 166 cases being reported, with an admission rate 8.89 per 1,000.

TUBERCULOSIS.

here were 28 cases, 24 of which were pulmonary tuberculosis, and tal of 6 deaths in all.

VENEREAL DISEASES.

here was a slight decrease in the venereal rate for 1916 over 1915, cases occurring, with an admission rate of 94.78. Of these cases were syphilis, 243 chancroid, and 410 gonorrhea.

ALCOHOLISM AND ITS RESULTS.

here were 97 cases admitted for this cause, with an admission rate 1.04, which was slightly lower than for 1915.

DIARRHEA AND ENTERITIS.

ne hundred and forty-five admissions are chargeable to this cause, ducing an admission rate of 16.50.

HEMORRHOIDS.

here were 77 cases admitted during the year.

MENTAL ALIENATION.

Forty-three cases of mental alienation were reported, giving admission rate of 4.89, an increase over 1915.

Periodic prevalence of epidemic diseases and pneumonia in Hawaii; also the numbe gunshot cases, by months.

Year.	Typhoid.		Paratyphoid.		Smallpox.		Measles.		Diphtheria.		Cerebrospinal meningitis.		Pnuemonia.		Gu sh wou
	No. 1.		No. 2.		No. 12.		No. 14.		No. 17.		No. 108.		No. 208.		No.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.
1916.															
January	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1
February	....	....	....	....	....	....	4	....	....	....	....	....	....	....	2
March	....	....	....	....	....	....	2	..	1	....	....	....	1	....	1
April	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2
May	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
June	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1
July	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
August	....	....	....	....	....	....	2	....	....	....	....	....	1	1	2
September	....	....	....	....	....	....	2	....	....	....	....	....	....	....	4
October	....	....	....	....	....	....	9	....	....	....	....	....	....	....	....
November	....	....	....	....	....	....	4	....	....	....	....	....	1	....	1
December	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
	2	....	....	....	....	....	23	....	1	....	1	....	3	1	19

SANITATION.

The department surgeon, Hawaiian Department, reports as follows:

here has been a decided decrease in rates of admissions and days lost for diseases injuries in line of duty, with a proportionately greater increase in the same for in line of duty, over the previous years in which Hawaii has been a separate artment.

he diseases and injuries not in line of duty are mainly due to disobedience of ers, and should rather be charged against discipline than against sanitary conions. With this view one may say that health conditions are good.

he department has been remarkably free from epidemic diseases. The rate of cases of venereal disease contracted in Hawaii has been increased from 67.5 per 00 to 76.5; the days lost from 1,514 to 1,565.

ne enlisted man was discharged on account of surgeon's certificate of disability for hilis, not contracted in line of duty.

here were 154 patients transferred to the Letterman General Hospital. Of this mber, 37 were cases of insanity, 28 tuberculosis, 19 results of injuries, 12 syphilis, all others 58. Attention is again invited to the high rate of mental cases.

here were 24 deaths from various causes, 19 in line of duty and 5 not in line of y.

SANITATION OF POSTS.

he following sanitary defects noted are not yet reported as corrected:

FORT KAMEHAMEHA.

idge ventilation full length of all kitchens in the barracks.

rainage from company barber shops into rock pile drain in front of barracks.

ow places and borrow pits around barracks, quarters, and batteries should be filled .

arrack water-closets should be removed to properly constructed building in rear barracks.

he following remarks of the quartermaster general relative thereto are contained ninth indorsement, office of the quartermaster general, December 13, 1916, on itary report, Fort Kamehameha, for October, 1916:

‘1. * * * That no changes in the construction of the barracks' kitchen roof are ommended until it has been determined that the steps already taken to improve ventilation are unsuccessful.

‘2. With reference to the drainage from the company barber shop commented on, it is the opinion of this office that its disposition should produce no nuisance.

‘3. The grading of low places and filling of borrow pits around the barracks and arters would involve a considerable expenditure of money, and as no funds are ailable at this time for this purpose the matter will have to be held in abeyance til additional funds are appropriated by Congress.

‘4. With reference to the objectionable location of the barrack water-closets this tter will be given consideration when report accompanied by estimates is received m the commanding general, Hawaiian Department, showing additional construcn, alterations, etc., required at Fort Kamehameha."

s stated in last report the plan of the new barracks overlooked certain essentials sanitation, and changes in original plan have further increased the difficulties. is possibility could probably be obviated in future if in revision of Army Regulans paragraph 1386 read as follows:

"The Medical Department is charged with the duty of investigating the sanitary ndition of the Army and making recommendations in reference thereto, of advising th reference to the location of permanent camps, posts, and the sanitary arrangent of barracks, quarters, and buildings occupied by troops or under military control, adoption of systems of water supply and purification, and the disposal of wastes, th the duty of caring for the sick and wounded, making physical examinations of officers and enlisted men, the management and control of military hospitals, t recruitment, instruction, and control of the enlisted personnel of the Medical Depa ment and of the Nurse Corps, and furnishing all medical and hospital supplies exce for public animals.

FORT SHAFTER.

The imperfect and inadequate sewage plant at Fort Shafter, referred to in la annual report, was made the subject of an exhaustive special sanitary report f warded with the January, 1916, report from this station. This matter is receiving t attention of the War Department. In accordance with instructions of the Secreta of War in sixteenth indorsement, July 18, 1916, on sanitary report, Fort Shafter, December, 1915, a cross-section survey and contour map of Fort Shafter, for use planning sewage treatment works, were forwarded to The Adjutant General by d partment commander, October 21, 1916. In the meantime the present means sewage disposal, while unsatisfactory, is being maintained in as good condition possible.

SCHOFIELD BARRACKS.

The following recommendations with reference to sanitary conditions at Schofie Barracks, made in previous sanitary reports, are repeated:

"That a guardhouse be erected in place of the stockade camp for general prisone

"That permanent roads be built to replace the quagmires now used as roads.

"That the makeshift and partial sewer system be extended to all parts of the p and completely modernized."

These recommendations have been discontinued upon receipt of the followi information from the office of the quartermaster general:

"On April 10 estimates were forwarded by this office for submission to Congr for funds to complete the accommodations at Schofield Barracks. Said estimate v in the sum of $2.077,263. Should this appropriation be made, funds will be availal for the construction of a permanent guardhouse at Schofield Barracks, for constru ing permanent roads, and for water and sewer systems at the cantonment.

"The condition of the septic tanks of the sewage-disposal plant at Schofield B racks, referred to in last report, was made the subject of a special communication The Adjutant General by the commanding general, Schofield Barracks, March 1916. Specific instructions for the working of this plant were received from the qu termaster general, and under date of May 17, 1916, the quartermaster, Schofield B racks, reported 'there are very few flies at the septic tank, and since the mat h thickened the odor has been greatly reduced.' No further complaints from this sou have been received."

DEPARTMENT HOSPITAL.

Quarters for medical officers and noncommissioned officers of the Hospital Co are required. The War Department has been asked for the money to buy adjoin land, and congressional action is sought. Until that time public buildings will inadequate for command and the officers will be obliged to live from 3 to 10 mi from hospital.

EFFICIENCY OF SANITARY TROOPS.

With the departure of 14 Regular medical officers to the mainland and elsewh last July and August, the organization of Ambulance Company No. 9 detaching t more from post and hospital duty, and the replacing these by one Regular and ei members of the Medical Reserve Corps, the Medical Department has been han capped in peace, and in case of actual hostilities would be greatly under its necess quota. This substitution of Medical Reserve Corps, some being elderly men w families, unfamiliar with their duties and Army methods, filling subordinate p tions under Regular officers their juniors in years and length of practice, is not c ducive to efficiency, and the surgeon of Schofield Barracks is laboring under spec difficulties in this particular.

Of the Regular officers it is unofficially stated that two contemplate resigning the near future to engage in civil practice. Of the eight Medical Reserve Corps (n January 20, 1917) it is understood that three will request early relief from act service. One has already asked for duty in Philippine Department, basing his ap cation on the grounds that the expenses in Hawaii are in excess of the salary of a f lieutenant. The present situation as regards quarters makes it very undesirable assign any married officer with less than captain's rank to duty at department h pital, as rent for suitable houses and necessary travel create expenses in excess the allowance for commutation.

STATUS OF SERGEANTS, FIRST CLASS.

he same applies to sergeants, first class, Medical Department, who, under the
nges in regulations reducing them from grade 13 to 15, are now deprived of com-
tation. This is a serious loss to a class of worthy noncommissioned officers from
om qualifications have been demanded equal to any of the noncommissioned staff.

ENLISTED PERSONNEL.

Vith the increased allowance of Medical Department enlisted personnel, the imme-
te urgent needs of the department hospital and Schofield Barracks are for the first
e supplied.

AMBULANCE COMPANY.

he organization of Ambulance Company No. 9 and the recent arrival of portion
ts motor transportation will enable future instruction in field service to be given
ll recruits of the Medical Department. While perhaps not absolutely necessary
case of hostilities here, at least one field hospital company should be given this
artment for instruction purposes.

he second ambulance company which the scheme of garrison contemplates should
organized at an early date, and unless a third company is available from the militia
hould be furnished by the Regular troops. While all the members of these sanitary
its may not be required in actual war for the express purposes for which organized,
services of trained men would be urgently needed in base and other hospitals
d could probably not be supplied from the mainland.

MEDICAL SUPPLY DEPOT.

he medical supply depot was established in April. The rented room is inadequate
proper storage and handling of all supplies and field reserves. Bids for new store-
uses have been advertised by the Quartermaster Corps, and it is understood that
e building is to be assigned to the Medical Department. Delay in receiving supplies
m the mainland due to strikes and congestion of freight has occurred. In view of
urrence of such conditions it is the part of wisdom to have on hand one year's
pply of nonperishable articles instead of six months. The supply officer has been
gaged in overhauling the reserve supplies and bringing them into an up-to-date
viceable condition.

PANAMA CANAL ZONE.

The mean strength of all troops, including officers, serving in t Panama Canal Zone during the year was 7,023, as compared wi 5,903 for 1915.

ADMISSION RATES.

The admission rate for all causes was 838.67, that for disea being 694.57, and that for external causes 144.10, as compared wi 859.22, 709.81, and 149.41, respectively, for the year 1915.

The diseases causing the highest admission rates were: Venere diseases, 115.62; malarial fevers, 66.50; bronchitis, 39.30; influen 38.59; diarrhea and enteritis, 30.90, and tonsolitis, 25.91.

It is considered worthy of comment to call attention to the remar able reduction in the malarial fever rate from 85.55 in 1915 to th given above, which would indicate that measures looking to the pr tection against and destruction of mosquitoes are effective, if pro erly carried out.

Admission rates for some of the principal diseases for Panama Canal Zone, Ameri troops, officers and enlisted men.

	Officers and enlisted men.		Enlisted men.	
	1916	1915	1916	191
Venereal diseases	115.62	132.48	119.71	13
Malarial fevers	66.50	85.55	67.52	8
Bronchitis	39.30	29.65	39.36	[illegible]
Influenza	38.59	46.76	37.89	4
Diarrhea and enteritis	30.90	16.00	30.08	1
Tonsillitis	25.91	29.14	26.54	2
Furuncle	25.77	26.09	25.80	2
Lymphadenitis, nonvenereal	18.80	13.21	19.46	1
Alcoholism (all)	12.67	15.25	13.12	1
Rhinitis, acute	11.68	6.78	11.65	[illegible]
Appendicitis	11.39	15.92	11.79	1
Rheumatism, muscular	9.82	9.32	10.03	[illegible]
Hemorrhoids	9.68	8.13	9.29	[illegible]
Tuberculosis (all)	4.13	5.93	4.13	[illegible]
Flat foot	3.99	5.25	4.13	[illegible]
Rheumatism, articular (all)	3.84	4.41	.59	[illegible]
Pleurisy	3.42	3.22	....	[illegible]
Dysentery	1.28	1.02	1.33	[illegible]

CONSTANTLY NONEFFECTIVE RATE.

The noneffective rate was 27.55 for all causes, as compared wi 25.63 for 1915; that for disease being 23.45 per 1,000, and that external causes, 4.10. The diseases causing the highest noneffecti rates were: Venereal diseases, 5.25 per 1,000; malarial fevers, 2. lymphadenitis, nonvenereal, 1.27; appendicitis and bronchitis, 0. each.

effective rate for some of the principal diseases for Panama Canal Zone, American troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted men.	
	1916	1915	1916	1915
real diseases	5.25	5.05	5.44	5.21
rial fevers	2.05	2.27	2.08	2.32
phadenitis, nonvenereal	1.27	.95	1.32	.98
ndicitis	.91	1.06	.94	1.08
chitis	.91	.64	.92	.64
enza	.66	.76	.61	.76
hea and enteritis	.51	.23	.52	.23
illitis	.48	.53	.49	.54
ncle	.38	.40	.35	.40
rculosis (all)	.38	.35	.39	.36
orrhoids	.28	.24	.26	.25
matism, muscular	.23	.14	.23	.11
feet	.20	.41	.21	.43
holism (all)	.19	.20	.20	.20
isy	.18	.08		.06
matism, articular (all)	.09	.21	.02	.21
ntery	.09	.08	.09	.08
itis, acute	.09	.06	.09	.05

INVALIDED TO THE UNITED STATES.

ne hundred and forty-two cases were invalided home, 33 of ch number were for tuberculosis, 17 for mental alienation, 9 for foot, 7 for epilepsy, 5 for secondary results of injury, and 4 for onic bronchitis.

Enlisted men invalided home from the Panama Canal Zone, year 1916.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
rculosis (pulmonary 30, of other ans 3)	33	23.24	5	8	1	1	18
al alienation (dementia precox other forms 3)	17	11.97		11		1	5
foot	9	6.34	2	6			1
psy	7	4.93	1	6			
dary results of injury	5	3.52		4			1
nic bronchitis	4	2.82	1			[illegible]	1
ilis	3	2.11		3			
asthenia	3	2.11		2			1
s media	3	2.11		3			
ose veins	3	2.11		3			
ritis	3	2.11	1	2			
ture	3	2.11		2			1
ritis, gonorrheal	2	1.41		2			
nic alcoholism	2	1.41			[1] 1		1
gium	2	1.41	1			1	
r of duodenum	2	1.41	1			1	
litis	2	1.41	1			1	
shot wound	2	1.41		2			
nic nephritis	2	1.41		2			
hosis	1	.70		1			
croid, indolent	1	.70					1
phosarcoma	1	.70			1		
hthalmic goiter	1	.70		1			
nic lead poisoning	1	.70		1			
s dorsalis	1	.70			1		
cular conjunctivitis	1	.70	1				
nic catarrhal conjunctivitis	1	.70		1			
titis phlyctenular	1	.70	1				

[1] Suicide.

Enlisted men invalided home from the Panama Canal Zone, year 1916—Continued.

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
Trachoma	1	.70		1			
Astigmatism	1	.70					
Choroiditis	1	.70	1				
Detached retina	1	.70		1			
Organic disease of the heart	1	.70		1			
Cardiac neurosis	1	.70		1			
Tachycardia	1	.70		1			
Irritable heart	1	.70		1			
Goiter	1	.70	1				
Pleurisy	1	.70					
Chronic gastritis	1	.70		1			
Appendicitis	1	.70	1				
Inguinal hernia	1	.70		1			
Constipation	1	.70				1	
Adhesions, peritoneal	1	.70				1	
Pyelitis	1	.70				1	
Nephrolithiasis	1	.70				1	
Orchitis, chronic	1	.70		1			
Sycosis barbae	1	.70		1			
Scar tissue, painful	1	.70	1				
Osteomyelitis	1	.70		1			
Ankylosis	1	.70				1	
Bunion	1	.70		1			
Dislocation semilunar cartilage	1	.70		1			
Sprian	1	.70		1			
Lacerated wound	1	.70		1			
Total cases	142		19	75	4	12	
Percentage of total cases		100.00	13.38	52.81	2.82	8.45	22

Tables Nos. 44 and 73 give the figures for all troops serving in t Canal Zone, including officers, and Table No. 76 gives the rates f enlisted men only.

DISCHARGE ON CERTIFICATE OF DISABILITY.

The rate for discharge on certificate of disability was 18.43, compared with 13.03 for 1915.

DEATHS.

The death rate for all causes was 3.99 per 1,000; that for dise being 1.57, and for external causes 2.42. In all, there were 28 deat 17 of which number were attributable to external causes.

LE NO. 44.—*Movement of sick in Panama Canal Zone, years 1916 and 1915, officers and enlisted men, American troops.*

	Years.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.
		Total.	In hospital.	Total.
o per 1,000 of mean strength:				
Admissions to sick report	1916	838.67	568.84	565.85
	1915	859.22	471.62	561.75
Discharges on certificate of disability	1916	18.43		15.04
	1915	13.03		11.00
Deaths	1916	3.99		1.57
	1915	2.46		1.31
Total losses	1916	22.42		16.61
	1915	15.49		12.31
Noneffective	1916	27.55	17.48	18.01
	1515	25.63	15.74	16.41
age number of days lost:				
For each soldier	1916	10.08	6.40	6.59
	1915	9.35	5.75	5.99
For each case	1916	12.02	11.25	11.65
	1915	10.89	12.18	10.66

OTE.—For further report see Eastern Department.

iodic prevalence of epidemic diseases and pneumonia in the Canal Zone; also the number of gunshot cases, by months.

Year.	Typhoid.		Paratyphoid.		Smallpox.		Measles.		Diphtheria.		Cerebrospinal meningitis.		Pneumonia.		Gunshot wounds.	
	No. 1.		No. 2.		No. 12.		No. 14.		No. 17.		No. 108.		No. 208.		No. 396.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1916.																
ary									1				1			
ruary																
ch							3								1	
il															4	1
y															1	
e							3								2	1
y															1	
gust																
tember															1	
ober															3	
vember															3	
ember							2				1		1			
Total							8		1		1		2		16	2

PORTO RICO.

The troops are all recruited from and partly officered by nati
Porto Ricans. The regiment is commanded by a United States Arm
officer. The sanitary work in connection with this organization is i
charge of a medical officer from the regular corps and a medic
officer from the Medical Reserve Corps. The two garrisoned pos
have a mean strength of 991 officers and men.

ADMISSION RATES.

The admission rate for all causes in 1916 (for officers and enlist
men) was 1,022.20, as compared with 552.16 in 1915; for diseas
942.48, as compared with 496.52, and for external causes, 79.72,
against 55.63 in 1915.

There is a marked increase in the total admission rate for 1916 ov
the year 1915, although the rate for venereal diseases is lower th
year as compared with 1915. The diseases causing the highe
admission as well as the highest noneffective rates were influen
and venereal, with rates of 250.25 and 80.73 per 1,000, respectivel

NONEFFECTIVE RATES.

The noneffective rate for all causes is also slightly higher than f
the preceding year, being 24.91 for 1916, as compared with 22.36 f
1915. The rate for disease was 22.53, as compared with 20.57 f
1915.

It will be noted that there was a marked increase in the malari
rate.

Some of the principal diseases, with the admission and noneffecti
rates, as compared with the preceding year, are shown in the followi
tabulation:

Admission and noneffective rates per 1,000 of mean strength for the most prevalent disea among officers and enlisted men in Porto Rico.

	Admission rates.		Noneffective rat	
	1916	1915	1916	191
Influenza	250.25	2.78	3.40	[illegible]
Venereal diseases	80.73	84.84	4.84	[illegible]
Chancroid and results	24.22	26.43	1.27	[illegible]
Gonorrhea and results	24.22	33.38	1.06	[illegible]
Syphilis and results	32.29	24.90	2.51	[illegible]
Malarial fevers	69.63	8.34	1.60	[illegible]
Diarrhea and enteritis	50.46	19.47	.83	[illegible]
Febricula and undetermined fevers	38.35	6.95	.92	[illegible]
Acute abscess and cellulitis	37.34	44.51	.65	[illegible]
Furuncle	33.30	23.64	.56	[illegible]
Rhinitis, acute	28.25	26.43	.60	[illegible]
Rheumatism, muscular	26.24	11.13	.66	[illegible]
Dengue	22.20	76.50	.64	[illegible]
Gastritis, acute, catarrhal	21.19	....	.24	.....
Diseases of the lymphatic system	18.16	31.99	.83	[illegible]

NOTES.—For further report see Eastern Department.

DISCHARGES ON CERTIFICATE OF DISABILITY.

he rate for discharge for disability was 11.52 per 1,000 for diseases 1916, as compared with 7.34 for diseases in 1915.

DEATHS.

he death rate was 4.04 per 1,000, there being 4 deaths during the r, 3 due to disease and 1 to injury. In 1915 there were 2 deaths to disease.

CHINA.

The mean strength of all troops, including officers, serving in Chir during 1916 was 1,369. This force consisted of Infantry, a detac ment of Signal Corps, Hospital Corps, and noncommissioned sta all white.

ADMISSION RATES.

The admission rate for all causes was 874.36, that for disea 778.67, and that for external causes 95.69, which are all lower th for the year 1915. The diseases causing the highest admission a noneffective rates are shown in the following tabulations:

The principal diseases for China—Admission rates for American troops, officers a enlisted men.

	Total officers and enlisted men.		Total enlisted men.	
	1916	1915	1916	191
Venereal diseases	284. 88	488. 39	295. 33	504
Diarrhea and enteritis	69. 39	48. 62	68. 13	47
Tonsillitis	44. 56	77. 65	46. 18	78
Lymphadenitis, nonvenereal	32. 14	27. 57	32. 55	2
Bronchitis	31. 41	27. 57	31. 04	2
Constipation	26. 30	80. 55	27. 25	8
Influenza	16. 80	29. 03	15. 14	2
Alcoholism (all)	16. 07	32. 65	16. 65	3
Appendicitis	13. 88	10. 16	14. 38	
Malarial fevers	8. 77	23. 22	9. 08	21
Furuncle	8. 77	15. 24	9. 08	1
Rheumatism, muscular	7. 30	24. 67	7. 57	2
Pneumonia (lobar)	6. 57	4. 35	6. 81	
Mumps	5. 11	5. 08	5. 30	
Rheumatism, articular (all)	4. 38	10. 88	4. 54	11
Dysentery	3. 65	1. 45	3. 79	1
Pleurisy	2. 92	4. 35	3. 03	
Tuberculosis (all)	1. 46	5. 08	1. 51	

Noneffective rates for American troops, officers and enlisted men.

	Total officers and enlisted men.		Total enlisted men.	
	1916	1915	1916	191
Venereal diseases	13. 95	13. 57	14. 45	1
Lymphadenitis, nonvenereal	1. 51	1. 15	1. 53	
Appendicitis	1. 42	. 31	1. 47	
Bronchitis	. 79	. 53	. 78	
Diarrhea and enteritis	. 65	. 48	. 64	
Tonsillitis	. 60	1. 06	. 63	
Alcoholism (all)	. 39	. 37	. 40	
Constipation	. 30	. 69	. 31	
Pneumonia (lobar)	. 29	. 27	. 30	
Influenza	. 28	. 38	. 27	
Pleurisy	. 26	. 23	. 27	
Mumps	. 23	. 40	. 24	
Malarial fevers	. 16	. 42	. 17	
Rheumatism, articular (all)	. 16	. 23	. 16	
Furuncle	. 13	. 28	. 14	
Dysentery	. 11	. 28	. 12	
Tuberculosis (all)	. 11	. 70	. 11	
Rheumatism, muscular	. 08	. 57	. 08	

DISCHARGE ON CERTIFICATE OF DISABILITY.

he discharge rate for disability was 13.15 per 1,000 for all causes.

DEATHS.

he death rate was 10.23 per 1,000, the rate for disease being 4, and that for external causes 2.19. The death rate was higher n for 1915, being 4.35 for the latter year.

ables Nos. 3, 73, and 76 give all figures for the troops serving in na for the year 1916.

he rates would indicate that the general health conditions have htly improved during the year 1916, although not so marked ast year (1915) over 1914. A considerable decrease in the admis- rate for venereal diseases is noted, with an increase, however, in noneffective rate for the same disease.

LE No. 46.—*Comparison of rates for the several countries garrisoned by the United States Army.*

parison of rates (per 1,000 of mean strength) years 1915-16, officers and enlisted men, Regular Army.]

	Admissions.		Noneffective.		Discharges.		Deaths.	
	1916	1915	1916	1915	1916	1915	1916	1915
rican troops, excluding officers:								
nited States	745.38	696.04	30.67	25.77	16.76	13.60	5.13	5.31
laska	344.97	378.65	9.23	8.71	21.48	11.80	6.71	2.54
Philippine Islands	838.60	976.88	27.88	28.70	14.42	23.22	4.49	2.87
hina	890.24	1,438.32	31.31	34.45	13.63	9.74	10.60	4.35
awaii	514.51	568.50	19.22	20.24	15.57	10.92	4.84	3.26
Panama, Canal Zone	849.63	859.22	28.15	25.63	18.43	13.03	3.99	2.46
The Army	747.59	735.97	27.98	25.77	16.52	14.26	5.21	4.57
e troops (enlisted):								
Porto Rican Regiment	1,022.20	555.07	24.91	22.78	11.52	7.34	4.04	4.41
Philippine Scouts	482.17	573.84	14.58	15.68	6.99	11.44	2.69	2.54

	Venereal diseases.				Malarial fevers.				Tuberculosis.			
	Admissions.		Noneffective.		Admissions.		Noneffective.		Admissions.		Noneffective.	
	1916	1915	1916	1915	1916	1915	1916	1915	1916	1915	1916	1915
rican troops, including icers:												
United States	87.07	79.95	5.34	3.84	12.19	12.37	0.34	0.27	3.46	2.68	2.63	2.33
Alaska	19.48	31.31	.70	.53	......	1.27	......	.01	1.30	1.27	.02	.15
Philippine Islands	154.77	176.88	7.36	7.70	60.93	61.68	1.59	1.13	4.49	6.08	.33	.47
China	284.88	488.39	13.95	13.57	8.77	23.22	.16	.42	1.46	5.08	.11	.70
Hawaii	91.78	95.76	5.45	4.78	2.05	1.69	.05	.05	3.19	3.49	.29	.27
Panama, Canal Zone	115.62	132.48	5.25	5.05	66.50	85.55	2.05	2.27	4.13	5.93	.38	.35
The Army	98.80	103.07	5.64	4.59	22.10	22.18	.61	.48	3.43	3.44	1.86	1.79
e troops:												
Porto Rican Regiment	80.73	89.57	4.84	4.82	69.63	8.81	1.60	.35	5.05	1.47	.37	.19
Philippine Scouts	29.93	34.33	1.79	1.96	43.38	80.11	1.14	1.51	3.05	4.54	.36	.58

ARMY TRANSPORTS.

The medical superintendent, Army Transport Service, port New York, reports as follows:

The transports listed below have been in service from port of New York for 19 with the following sailings:

U. S. transport *Kilpatrick*, between New York and Cristobal, Canal Zone.

U. S. transport *Sumner*, between New York and Cristobal, Canal Zone (also o trip was made touching at Kingston, Jamaica).

U. S. transport *Buford*, between New York and Iquique, Chile.

During this period no major infectious cases have been removed from any of t ships by national quarantine officers. A few cases of measles have been report among troops, but handled in the ordinary way.

Numerous troops have been transported in 1916, but no epidemics have aris either aboard or ashore in consequence and no infection has been conveyed fr distant ports.

Since October 11, 1916, a medical superintendent, appointed by S. O. 238, W. October 11, 1916, has had direct charge of inspections of these vessels at the ho port. The sanitary condition of the transports for 1916 has been satisfactory.

The department surgeon, Western Department, acting as medic superintendent, Army Transport Service, port of San Francisc reports as follows:

The sanitary condition of the Army transports and the accommodations provid for troops and passengers have been satisfactory.

During the voyage of the *Thomas* from San Francisco to Manila in February, 21 ca of mumps and 3 cases of measles developed. Original source of infection undoubtedly at Fort McDowell, Cal., from which post both mumps and meas were reported as having existed during the month of January, 1916.

Fifteen cases of measles developed between September 9 and October 4 on t U. S. transport *Sherman* en route to Manila and seven cases during the voyage endi at San Francisco, August 12, 1916.

The surgeon of the *Logan* reported that seven cases of measles among the childr of the first-class passengers occurred during the voyage from Manila to San Francis March 21 to April 19.

Weekly physical inspections of troops were held on all transpor Men found suffering from venereal diseases were placed under trea ment and denied shore leave while in port.

Under the direction of the medical superintendent, all perso embarking or disembarking were examined to determine wheth they had any infectious disease.

GENERAL HOSPITALS.

LETTERMAN GENERAL HOSPITAL, SAN FRANCISCO, CAL.

he location of this hospital on the Presidio military reservation ermanently fixed by the amount of money already invested.

he small amount of land assigned to the reservation for the hos- l is entirely occupied by buildings, and it can not be further ex- ded without the allotment of additional land to its reservation. s can be done without taking any of the land necessary for troops ioned on the Presidio reservation. The small plat of land on the nsion of the present line of the hospital reservation, south of Fine Arts Palace, could be used, and immediate action should be en to secure the assignment of this small plat of land to the terman General Hospital reservation, as to-day, if an emergency se, there isn't any land within the limits of the present reserva- n on which a half dozen tents could be pitched.

he climate is bracing and invigorating, never very hot and never y cold, and it is particularly fine for the purposes of a general pital. The patients returning here from the Tropics recuperate idly, and their vitality is restored probably much sooner here n in any other section of the country.

uring the year the following new buildings were completed: rd A; a reinforced concrete building; addition to the bacterio- cal laboratory; last unit, nurses' dormitory medical and surgical ensary.

he number of patients admitted during the year was 2,972. re were 334 cases remaining from the previous year; 2,941 cases e disposed of during the year. In addition to the above, there e 111 admissions from the Federal National Guard; of these 95 e disposed of, and 16 were remaining in hospital on December 31, 6. The number of cases treated during the year was 3,383, as ows: Medical, 1,650; surgical, 1,158; venereal, 315; and mental, . The average number of days lost for each case was as follows:

	Officers.	Enlisted men.	General prisoners.	Civilians.	
				Male.	Female.
cal	46.48	30.63	18.15	29.81	12.09
cal	39.97	22.68	26.29	14.60	15.52
eal	46.00	44.34	21.50	49.31	17.33
al	62.54	81.44	34.14	43.73	10.86

The following tables show the movement of the sick, together w the principal sources of admission, during the calendar year 1916

	Officers and enlisted men.	Others.	Tot
ADMISSIONS.			
Command	92	48	
Transfer	1,869	86	
Otherwise	63	814	
Total	2,024	948	
DEPARTURES.			
Duty	1,334	10	
Died	35	44	
Discharged for disability	379	1	
Deserted	7	1	
Discharged, expiration of term	1	4	
Transferred to hospital for insane	73	3	
Transferred to other hospitals	89	....	
Otherwise disposed of	76	884	
Total departures	1,994	947	
SUMMARY.			
Remaining from 1915	272	62	
Admissions, 1916	2,024	948	
Total to be accounted for	2,296	1,010	
Departures, 1916	1,994	947	
Remaining, midnight, Dec. 31, 1916	302	63	
Days lost:			
In hospital	80,688	19,641	10
In quarters	2,432	....	
Total days lost	83,120	19,641	10

	Officers.	Others.	Enli
Average number of days lost	46.159	20.332	3
Average number of patients daily	20.557	52.884	2
Average number of days lost per patient	....	....	3

Federal National Guard.

	Officers and enlis me
Admissions:	
By transfer from other hospitals	
Otherwise admitted	
Total admissions	
Departures:	
Returned to duty	
Discharged for disability	
Otherwise disposed of	
Total departures	
Summary:	
Admissions, 1916	
Departures, 1916	
Remaining, midnight, Dec. 31, 1916	

	Officers.	Enli
Average number of days lost	26.656	
Average number of patients daily	.050	
Average number of days lost per patient	....	

here were 79 deaths in all during the year, 37 officers and enlisted , 2 general prisoners, and 40 civilians, and others. The principal ses for these deaths is given below:

ers and other malignant tumors	9
nic diseases of the heart	7
cho-pneumonia	7
iac dilatation	6
ht's disease	5
umonia (lobar)	5
erculosis of the lungs	5
carditis	3
ases of the arteries	2
ases of the intestines	2
ases of the liver	2
tonitis	2
ases of the bladder	2

here were 393 discharged on certificate of disability. Of this nber 273 were not in line of duty and 120 in line of duty. The cipal causes were as follows:

foot	67
tal alienation	60
hilis	20
ases of the heart	18
rasthenia	17
ia	17
ases of the joints	17
erculosis of the lungs	16
umatism and gout	14
ases of the eye	13
epsy	12
ases of the bones	12
coccus infection	10
hritis	10

he following is a statement of the admissions and disposition of ne patients during the year:

Movements of the insane.

	Officers and enlisted men.	Others.	Total.
rned to duty	2		2
hospital		4	4
arged on certificates of disability at this hospital	44		44
	4		4
sferred to the Government Hospital for the Insane	73	3	76
home for discharge	13		13
rted	2		2
Total	138	7	145

urgical operations were as follows: General surgery, 924; eye, ear, e, and throat, 519.

The following is a condensed tabular statement of the surgi operations:

Operations.

Operations.	Regular Army.		Federal National Guard.		Total.	Retired officers.	Retired enlisted men.	Army Nurse Corps.	General prisoners.	Civilians.	Total.
	Officers.	Enlisted men.	Officers.	Enlisted men.							
Cranium	....	4	....	....	4	....	....	....	....	3	3
Face	....	11	....	1	12	....	....	....	....	....	....
Neck	1	5	....	....	6	....	....	....	1	5	6
Upper extremity	2	15	....	....	17	....	1	1	2	34	38
Thorax	....	2	....	8	10	....	....	....	2	8	10
Abdomen (laparotomy)	13	96	7	11	127	....	5	1	15	83	104
Genito-urinary	2	45	....	2	49	....	....	....	1	36	37
Rectum and anus	8	56	1	5	70	....	1	1	10	10	22
Gynecological, internal	....	....	....	....	....	....	....	....	....	60	60
Gynecological, external	....	....	....	....	....	....	....	....	....	79	79
Lower extremity	3	54	....	2	59	....	1	....	2	38	41
Major (not included)	1	1	....	1	3	....	....	....	....	2	2
Minor (not included)	19	49	....	....	68	1	3	3	5	52	64
Obstetrical	....	....	....	....	....	....	....	....	....	33	33
Total	49	338	8	30	425	1	11	6	38	443	449

Nine hundred and twenty-four operations were performed, against 771 last year (the eye, ear, nose, and throat cases included), an increase of 153. In addition and not listed in the ab statement, there were 7,435 dressings done and 48 emergency c attended to in the dressing room of the operating pavilion, 9,569 dressings were done in the dressing room of the surgical w for infected cases and 171 minor operations performed.

SURGICAL SERVICE.

Gynecology and obstetrics.—The appended report of operations the tabular statement give in detail the number and characte gynecological operations performed and treated. The facilities caring for these cases are satisfactory and sufficient, though at ti the ward has been uncomfortably crowded.

In July the ward for special surgical cases was opened and use an obstetrical ward, a needed addition, and well meets the requ ments as an obstetrical ward.

There was a total of 57 confinements cared for during the year, divided as follows:

Normal deliveries	53
Breech presentations	[illegible]
High forceps, axistraction	1
Midwifery forceps	[illegible]
Total	57

There was one stillbirth, due to prolapse of cord in high forceps delivery, the labor very prolonged. One baby died within a week after birth through failure of the foramen ovale to close. There was one death in puerperium from the complication of double l pneumonia. There were six miscarriages and abortions, and premature birth.

In all cases of perineal laceration immediate repair was done.

A total of 418 patients were admitted to the woman's ward during te year, an increase of 36 over the admissions of last year.

Venereal wards.—Venereal cases admitted and treated amounted a total of 373 during the year, divided as follows:

philis:	
Primary	17
Secondary	66
Tertiary	50
Period undetermined	34
Hereditary	1
Acquired nonvenereally	1
docyclitis, syphilitic	1
Syphilis, all periods, total	170

Of this total, 108 were returned to duty, 29 were discharged on rtificate of disability, 13 left hospital, 1 deserted, 2 died, and there e 17 remaining.

ancroids	32
ibo, chancroidal	12
imosis, chancroidal	1
Chancroids and complications, total	45

Of these 42 were returned to duty, 1 was discharged on certificate disability, 1 deserted, and 1 is remaining.

norrhea:	
Urethritis, acute	70
Urethritis, subacute	16
Urethritis, chronic	28
Arthritis	20
Epididymitis	14
Prostatitis	3
Urethral stricture	4
Cystitis	1
Endocarditis	2
Gonorrhea and complications, total	158

Of the above, 116 were returned to duty, 24 were discharged on rtificate of disability, 7 left hospital, 1 died, and 10 are remaining der treatment.

Of all the venereal cases, 128 existed prior to enlistment, and at e end of the year there is a total of 28 remaining under treatment.

Orthopedic work was discontinued in July of this year, the officer ho was in charge of it having been ordered away. Considerable ccess attended this line of work, and many cases were saved to e service which otherwise would have had to be discharged.

The following is a statement of the work done in the eye, e nose, and throat clinic:

SUMMARY.	Hospital cases.						Out cases.						
	Officers.	Enlisted men.	Families, officers and enlisted men.	Civilian employees.	Civilians.	Total.	Officers.	Enlisted men.	Families, officers and enlisted men.	Civilian employees.	Army Nurse Corps.	Civilians.	Total.
Total eye cases	52	213	20	2	9	296	105	201	270	13	25	49	663
Total ear cases	26	144	18	4	3	195	18	59	91	8	19	12	207
Total nose cases	50	215	20	9	4	298	32	82	89	11	10	5	229
Total throat cases	34	231	129	14	3	411	26	40	271	12	8	4	361
Total, all cases	162	803	187	29	19	1,200	181	380	521	44	52	70	1,460

There were 2,660 cases treated, and 519 operations perform during the year.

There were 446 cases of all classes refracted.

The dentist on duty at the hospital reports 1,717 persons treat in the dental clinic during the year.

The work of the laboratory has increased 50 per cent over that the preceding year. This laboratory, in addition to performing large amount of work required for this hospital, does the work of Western Department and for posts not in that department located in the western part of the United States. The report of work done will be found under the general head of "Laboratorie

The mean daily strength of the personnel on duty during the y was as follows:

Medical officers	13
Post noncommissioned staff	2
Detachment, Medical Department and Quartermaster Corps	140
Nurse Corps	42
Mean aggregate	198

There were 27 civilians employed by the Medical Department, a 11 by the Quartermaster Corps on duty in the hospital during year.

The enlisted personnel at this hospital is inadequate. The stren has been increased somewhat, but it is still too meager to render service required. It is recommended that it be increased to the allowance provided for general hospitals, as per Manual for Medical Department, 1916.

On December 31, 1916, there were 393 patients in hospital, wit total enlisted strength of but 151.

The mean strength of enlisted personnel for the year was 140.72

Army Nurse Corps.—The work of the Army Nurse Corps on d at this hospital has been of a high order, and at times very arduo due to its inadequate number. The fluctuation of patients in hospital, and sudden call for nurses for isolation, made a great dr on the number on duty in the wards.

There has been an average of 42 nurses on the roster at this hospital ring the year; but this does not mean that this was the average of rses doing actual duty, as it included nurses coming from the ands with leaves of absence granted them, those here for a short ne before sailing for the islands, and those on actual assignment re on leave and on sick report.

There are always a number of seriously sick patients here to be red for, and, in order to give them this care and to allow for leaves d sickness, the number of nurses assigned to this hospital should t be less than 55.

A new X-ray laboratory, with modern X-ray equipment, com-ensurate with the size and importance of this institution, is sential.

The following designated new buildings were completed during the lendar year 1916:

nuary 22, 1916.—Ward A, a reinforced concrete building	$19,678.00
bruary 10, 1916.—Addition to the bacteriological laboratory	5,264.10
ly 28, 1916.—Last unit, nurses' dormitory	18,653.00
cember 22, 1916.—Medical and surgical dispensary	19,806.50

MEDICAL SERVICE.

During the past year there have been no new features on the edical service worthy of mention from the standpoint of diagnosis d treatment.

A new ward designed especially for the open-air treatment of berculosis patients was completed and opened during the year. his ward is devoted to the care of patients awaiting transfer to ort Bayard, N. Mex., and of other tuberculosis patients who can not so transferred for various reasons.

There were no new features introduced in the X-ray laboratory uring the year.

One thousand and forty-one Roentgenograms were made during e year; this number included the examination of 63 gastrointestinal ses after bismuth meals, and also 135 dental cases.

The construction of a new X-ray laboratory commensurate with e size and importance of this hospital, with modern equipment, cluding a larger X-ray machine installed on an alternating current, ould greatly increase the scope of this work.

During the year there has been a daily average of about 26 cases ceiving treatment in the new hydrotherapeutic plant. In the small lant operated in the officers' ward about six cases received hydro-erapeutic treatment daily.

One case of typhoid fever was admitted to the hospital during e year. This patient had received two doses of typhoid prophy-xis, the second one three days before he was taken ill. He made n uninterruptd recovery. No cases of paratyphoid fever were dmitted during the year.

One case of cerebrospinal meningitis, epidemic form, was admitted the hospital during the year. He was treated with antimeningitis rum and made a good recovery. It was, however, necessary to ischarge him on certificate of disability for neuritis, a sequel of the isease.

Three cases of trichinosis were admitted. They all recovered after rather prolonged convalescence.

A civilian employee of the Quartermaster Department was admitt to the hospital during the year, suffering from leprosy. He w transferred to the isolation hospital, San Francisco, Cal.

First Lieut. H. R. Oliver, Medical Corps, has been in charge the laboratories for chemical and pathological work since Octob 19, 1916. Capt. H. J. Nichols, Medical Corps, was chief of the labor tory service from January 1, 1916, to July 25, 1916, when he w ordered to the Southern Department for temporary duty. Duri the rest of the year the work was under the direction of Lieut. H. Oliver, Medical Reserve Corps, assistant clinical professor of me cine, of medical department of Stanford University. Sergt. Au burg, Medical Department, who had been in the laboratory as n commissioned officer in charge, was relieved February 12, 1916, Sergt. Williams. The present force is one sergeant and four privat fisrt class, and privates.

The laboratories served as clinical laboratories for the hospi with its 3,078 admissions, and as a department laboratory for t Western Department. The work covers parts of chemistry, bacte ology, parasitology, pathology, and serology, and may be summariz as follows:

Urine examinations	5,767	Typhoid examinations:	
Sputum examination for tubercle bacilli	1,077	Blood	
Throat cultures for diphtheria	810	Stool	
Blood examinations	895	Urine	
Examination of feces for parasites and ova	744	Agglutinations	
Examination of venereal sores and discharges	401	Renal functional tests	
Spinal fluid examinations	181	Animal inoculations	
Wassermann reactions	7,984	Water examinations:	
Skin reactions	39	Chemical	
Smears, miscellaneous	1,112	Bacteriological	
Stomach contents, routine	58	Milk examinations:	
Stomach contents, toxicological	4	Chemical	
String tests for occult blood	16	Bacteriological	
Skin examination	7	Examination of human milk	
Cultures, miscellaneous	268	Examination of rats and gophers for plague	
Vaccines made	42	Miscellaneous chemical examinations—drugs, flour, etc.	
Vaccines and injections	487	Tissue examinations	

Autopsies.—Under orders of the commanding officer, post-mort examinations were made on all officers and enlisted men dying this hospital and permission was obtained for examination of so of the other cases. Of the 83 deaths, 53, or about 63 per cent, w followed by autopsies. In general, about 90 per cent of the clini diagnoses were confirmed at autopsy.

Syphilis.—The most interesting development under this head has been the marked increase in the number of Wassermann re tions performed during the year. This item shows an increase more than 150 per cent over the preceding year, due to the rout examination, since January 1, 1916, of 2,834 recruits from F McDowell, Cal., and since July 14, 1916, of 1,342 recruits from F Logan, Colo.

'he following table gives a brief summary of the Wassermann :tions during the year:

	Total.	(+)	(±)	(+ −)	(−)	Anticomplementary Hæmolyzed, etc
it depot, Fort Logan, Colo	1,342	92	27	31	1,166	26
ent		6.85+	2.01+	2.31+	86.[illegible]+	1.93+
uit depot, Fort McDowell, Cal	2,831	199	70	85	2,478	2
ent		7.02+	2.47+	2.99+	87.[illegible]3+	.07+
her posts in Western Department	3,808	907	181	214	2,478	25
ent		23.82+	4.83+	5.62	65.07+	.65+
Total	7,981	1,198	281	330	6,122	53
Per cent		15.00+	3.52+	4.13+	76.67+	.66+

'he value of the practice of making and recording routine Wasser-nn tests on recruits has been repeatedly deomonstrated at this pital within a few months of enlistment. It is believed that this ue will increase with years of service, and that the Wassermann should become a recognized part of the examination of recruits. serum test for tuberculosis recently investigated by Maj. Craig ld also be made with the same specimen of blood.

'yphoid group.—Two cases were diagnosed typhoid fever during year. One case, a private in the Coast Artillery Corps stationed Fort Winfield Scott, Cal., was admitted to this hospital March 11, 6, and positive blood cultures were obtained on March 16, 1916. had completed his typhoid prophylaxis on March 1, 1915. The rce of infection could not be traced, but was probably in the city San Francisco. No other cases developed at that post.

'he second case was a private in the Second Infantry, Washington tional Guard, serving at Calexico, Cal. A positive blood culture obtained July 24, 1916, in this laboratory and the patient was sequently transferred to this hospital for treatment. He had eived but two doses of typhoid prophylaxis; the second dose, en July 5, 1916, and he was taken sick on July 8, 1916.

'o cases of paratyphoid were admitted.

)iphtheria.—Further experience confirms the opinion that medical cers, enlisted men of the Medical Department, and nurses should subjected to the Schick test before taking charge of diphtheria es, and that, if possible, this test should be carried out on contacts ore using prophylactic doses of serum.

n several instances, virulence tests were made on organisms from riers, and when the tests were negative the carriers were released m quarantine or observation.

Rabies.—Two cases which had been bitten by a rabid dog were ated with the Pasteur treatment, one receiving the intensive atment and the other the modified treatment; neither case devel-d symptoms. The brain of the dog was received and Negri bodies nonstrated in this laboratory.

Water supply.—The water supply of this reservation has given ich concern to those responsible for its purity on account of the inge—accidental contamination—of the watershed from the city eets and sewers. The alum-sand filter is efficient ordinarily but er a break of a city sewer into Lobos Creek in January, 1916, the

filter proved unable to purify the water and boiling was necessar
This was quite a serious matter, as it involved the water supply
Fort Scott, the Presidio, the Letterman General Hospital, Fo
Mason, Fort McDowell, and the transports. After considerab
agitation a chloric gas outfit was secured, with the assistance of Ma
W. J. L. Lyster, and installed in September, 1916. The machin
has proved quite satisfactory and two parts per million has mac
it possible to reduce the amount of alum used about one-half. E
periments are in progress to determine if it is safe to reduce the alu
further or entirely give it up, using simply the sand filter to remo
gross dirt. The price of alum has gone up about 300 per cent.

Amount of work and needs.—The work done, in general, exceeds th
of the preceding year by over 50 per cent, some few branches of th
work, such as Wassermann tests, showing a much larger increas
This increase has been accommodated notwithstanding the fact th
since July the laboratory has not at any one time had its full quo
of enlisted personnel, and at times running with as low as 50 per ce
of the number at work the year preceding. The greatest need
present is for a competent chemical assistant to replace the priva
whose services the laboratory lost the latter part of November.

Gas was installed in the laboratory about the middle of July, 191
and has proved a great aid and timesaver.

Special work.—A lecture on "Spirochetiases" was gvien at th
Hooper Institute, University of California, on March 4, 1916, by Cap
Nichols.

A paper on "Possible Reasons for Lack of Protection after An
typhoid Vaccination," by Capt. Nichols, was published in the Mi
tary Surgeon of March, 1916.

In line with the policy of the Surgeon General's Office to establi
research boards in connection with the larger laboratories, some wo
was undertaken by Capt. Nichols on the gall bladder carrier proble
The results of this investigation were published in a paper entitl
"Experimental Observations on the Pathogenisis of Gall Bladd
Infections in Typhoid, Cholera, and Dysentery," which appear
in the Journal of Experimental Medicine for November, 1916.

WALTER REED GENERAL HOSPITAL, TAKOMA PARK, D. C.

This hospital serves as the general hospital for the Eastern Unit
States and as the post hospital for Washington Barracks.

It is situated at Takoma Park, D. C., about 6 miles from the W
Department and three-quarters of a mile from the Baltimore & Oh
Railroad stations at Takoma Park, D. C., and Silver Spring, Md.

The present capacity of the hospital, including the baseme
wards, is about 180 beds. In addition there are 17 beds in t
isolation ward, and arrangements have been made by which 1
additional patients may be cared for, temporarily, in the detachme
barracks.

The average number of days in hospital for patients has increas
over 23 per cent during the year, the increase for officers and enlist
men amounting to 20 per cent.

The accommodations for officers and women, and others on t
status of officers, are inadequate and some discomfort and d

isfaction has resulted from frequent shifting of patients to provide ce for the different sexes, ages, and conditions.

The commanding officer recommends that wards "A" and "B" made three stories each, thereby providing additional rooms for cial cases.

Additional room is also needed for the X-ray laboratory. During year 729 cases were X-rayed, of which number 108 were taken or more times for comparison, and 53 were dental cases.

The group of rooms for psychopathic patients was completed and t into use during the year, but has not proved satisfactory.

Although there are 11 medical officers on duty at this hospital, y two are provided with quarters in the grounds, an arrangement ich is unsatisfactory and impairs the efficiency of the hospital vice.

At least two double sets of married officers' quarters should be ovided.

With the exception of necessary minor repairs the hospital and st of the other buildings are in good condition.

The stables should have concrete floors, and arrangements should made for the disposal of manure without fly breeding.

The temporary coal sheds which were erected some years ago are sightly and falling down; they should be replaced by permanent uctures.

A shelter for the protection of persons waiting for the cars, often uarter of an hour at a time, should be provided, which could well constructed so as to combine a waiting pavilion with a proper d dignified entrance to the grounds in the shape of an ornamental h with gateways.

The grounds require grading, filling, and the surface drained.

The service of the hospital would be much improved by a more rmanent staff, medical officers, enlisted men, and nurses.

A dental surgeon, whose services are greatly in demand at this spital, has recently been assigned to duty and will no doubt be a ry useful addition to the staff.

The character of recruits received during the year has been below normal. Many are very young and irresponsible, others are hard nkers, and quite a few seem incorrigible.

The allowance of men of the Quartermaster Corps is insufficient, cessitating the detail of at least six enlisted men of the Medical partment for duties that should properly be performed by the artermaster Corps personnel.

The number of patients admitted during the year, including ilians, was 1,350, an increase of 175 over the preceding year.

The average number of days in hospital for each case was as follows:

Class of cases.	Officers.	Enlisted men.	Civilian.	
			Males.	Females.
lical	34.48	29.13	31.86	24.09
gical	29.00	35.93	16.67	16.38
ereal	53.00	31.49	42.00	....
tal	22.40	32.57	32.25	19.25

The following table shows the movement of the sick, together wi the principal sources of admission, during the calendar year 1916, i cluding civilians. No general prisoners were admitted.

	Officers and enlisted men.	Officers and enlisted men, Organized Militia.	Civilians.	Total.
Admissions:				
Command	144		11	
Transfer	602	29	6	
Otherwise	115	12	431	
Remaining Dec. 31, 1915	85		21	
Total to be accounted for	946	41	469	1,
Dispositions:				
Duty	607	25	7	
Died	25		19	
Discharged for disability	110			
Deserted	1			
Discharged, expiration of term				
Transferred to Government Hospital for Insane	27	2	2	
Transferred to Fort Bayard, N. Mex	7			
Transferred to other hospitals				
Otherwise disposed of	91	10	414	
Remaining Dec. 31, 1916	78	4	27	
Total	946	41	469	1,

There were 44 deaths. Of this number 7 were officers, 18 enlist men, 5 retired officers, 4 retired soldiers, and 10 civilians.

The following were the causes of deaths:

Cellulitis	1
Diabetes, mellitus	3
Sarcoma	3
Carcinoma of uterus	1
Carcinoma of stomach	2
Tumor of pancreas	1
Tumor hypernephroma	1
Tumor malignant of prostate	1
General arterioschlerosis	3
Chronic interstitial nephritis uremia	2
Fracture, base of skull, meningitis	1
Fracture of skull	1
Pulmonary tuberculosis	1
Injury of skull or brain	1
Paralysis of intestines	1
Tabes dorsalis, syphilitic	1
Cerebrospinal and pulmonary syphilis, meningeal irritation	1
Gunshot wound, self-inflicted	1
Drank solution of lye (insane)	1
Hanging by neck, depressive mania	1

Pneumonia, lobar
Myocarditis, acute dilatation and hepatitis, chronic, syphilitic
Influenza, acute
Cerebrospinal meningitis
Pernicious anemia, with edema of lungs
Strangulated inguinal hernia
Hypertrophy of prostate, with urinary retention
Typhoid fever, acute cardiac dilatation
Pylephlebitis and peritonitis
Suppression of urine and uremia
Softening right cerebral hemisphere
Nephritis, subacute, with toxemia
Aortitis, acute
Gastric obstruction following perforation of gastric ulcer
Appendicitis, acute, suppurative

There were 110 discharged on surgeon's certificate of disabilit Of this number 47 were in line of duty, 61 were not in line of dut and two cases were discharged for two separate disabilities, one line of duty and one not in line of duty.

The causes were as follows:

Causes of disability.	Yes.	No.	Yes and no.	Total.
es and diseases of organs of locomotion	17	14		31
sthenia	3	1		4
icitis, chronic		1		1
thyroidism	2	1		3
lis, tertiary		2		2
thalmic goiter		1		1
es of organs of vision	3	3		6
es of the ear		1		1
culosis, pulmonary	1			1
ophytosis, sycosis barbæ		1		1
is	1			1
y		1		1
ntia precox		3		3
opathic constitution		2		2
tutional inferiority		2		2
ic lead poisoning		1		1
mia, splenomyelogenous type	1			1
cular hip-joint disease	1			1
plegia	1			1
s		2		2
arditis	1			1
matism. chronic, recurrent		1		1
le heart		1		1
	1			1
fistula	1			1
x state		1		1
psia	1			1
gitis, chronic	1			1
se veins		2		2
re lumbar vertebræ		1		1
na, cervical glands	1			1
ic neurosis		1		1
a	2			2
ic arryhthmia		1		1
is, chronic		1		1
halitis. chronic		1		1
traumatic, with persistent sinus		1		1
is, gonorrheal with urinary incontinence		1		1
, persistent, perineal with cystitis	1			1
itis, chronic and psychopathic constitution			1	1
itis, gonorrheal with pes planus		1		1
opathic constitution with chronic constipation		1		1
itutional inferiority. syphilis, tertiary		1		1
itis, gonorrheal, flat foot, second degree		1		1
abdominal adhesions with neuropathic constipation			1	1
a pectoris and arteriosclerosis	1			1
chymatous nephritis, myocarditis	1			1
cele and atrophy, left testicle		1		1
ning transverse arches, hydrocele	1			1
oot and arthritis, metatarsal		1		1
ac neurosis, mitral regurgitation		1		1
se veins, swollen left leg and thigh	1			1
cele, incipient degeneration of testicle	1			1
itis, gonorrheal		3		3
, cardiac region		1		1
ac neurosis		1		1
y tuberculosis of omentum and tuberculosis, pulmonary, nt	1			1
iosclerosis and endocarditis	1			1
cardia and tonsillitis, chronic	1			1
ilis, cerebrospinal paraplegia, with aortitis, paresis of lder, and pyonephritis		1		1
Total	47	61	2	110

he following is a statement of admissions and dispositions of ne patients during the year:

	Officers and enlisted men.	Civilians.
rned to duty	1	
hospital		6
harged on surgeon's certificate of disability	10	
sferred to Government Hospital for Insane	29	2
hospital on sick leave	1	
	1	
Total	42	8

An active surgical clinic is maintained at the hospital, the follo ing being a condensed tabular statement of the surgical operatio during 1916:

	Officers.	Enlisted men.	Officers, Organized Militia.	Enlisted men, Organized Militia.	Total.	Retired officers.	Retired enlisted men.	Army Nurse Corps.	Civilians.	Total.
Cranium	1	1	......	......	2	......	......	......	......	......
Eye	1	8	......	1	10	......	1	......	1	2
Nose	23	59	1	3	86	......	2	......	38	40
Ear	......	1	......	......	1	......	1	......	8	9
Throat	10	23	......	......	33	......	......	......	217	217
Face	......	2	......	......	2	......	1	......	1	2
Neck	1	......	......	......	1	......	......	......	1	1
Upper extremity	6	15	......	......	21	2	3	......	4	9
Abdomen	14	58	1	4	77	......	3	......	42	45
Gynecological, external	......	......	......	......	......	......	......	......	27	27
Gynecological, internal	......	......	......	......	......	......	......	......	22	22
Lower extremity	2	20	......	......	22	1	2	......	1	4
Major, not included	9	23	......	......	32	1	1	......	22	24
Minor, not included	2	7	1	......	10	2	......	......	4	6
Total	69	217	3	8	297	6	14	......	388	408

Included in this list are 37 operations for appendicitis, 39 operati for hernia, 23 operations for hemorrhoids, and 49 gynecologi operations. Four women were delivered at term. Of the operati performed one was followed by death.

In addition to the above list of operations, there were done 10, separate dressings, exclusive of eye and ear clinic, during the year

The following is a statement of the work done in the laborat during the year:

Examinations of—	
Urine	3,
Blood	
Sputum	
Feces	
Stomach contents	
Urethral discharges	
Autopsies	
Miscellaneous	
Total	6,

The following is a statement of the apparatus in use and the w done in the hydrotherapy plant and gymnasium during the ye There are four rooms occupied.

Apparatus in use:	
Punching bag and platform	1
Rowing machine	1
Weight-lifting machine	1
Medicine balls	1
Indian clubs, pairs	5
Boxing gloves, sets	1
Dumb-bells, pairs	3
Plinth	1
Baking apparatus:	
Body baking apparatus	1
Local baking apparatus	2
Electric vibrator	1

s:

abinet	1
Needle and shower	1
Douche, jet	1
Tub	1
Sitz	1
arbonated	1
Pack—hot, cold, or dry	1
Drip sheet	1

SUMMARY OF TREATMENTS GIVEN.

s:

Needle and shower	5,282
Douche, jet	2,470
Douche, Scotch	2,015
Douche, fan	1,219
Douche, perineal	30
Tub	168
Carbonated	24
Sitz	107
Pack—hot or wet	88
tric cabinet	3,613
ation	1,160
age	4,749
ng	2,051
nasium	1,456

ber of patients treated	226
ents remaining under treatment, Dec. 31, 1916	25
Total	351

wo attendants, members of the Medical Department, gave the tments the greater part of the year.

he following is a statement of the work done in the eye, ear, e, and throat clinic:

ers and enlisted men	427
ilies of officers and enlisted men	183
lian employees of Government	6
y Nurse Corps	3
mination of Army nurses for appointment	78
thers	39
Total	736

he mean daily strength of the personnel on duty at the hospital ing the year was as follows:

ical officers	9.14
noncommissioned staff	.43
ical Department and Quartermaster Corps	118.81
y Nurse Corps	26.04
Mean aggregate	154.42

GENERAL HOSPITAL, FORT BAYARD, N. MEX.

he general hospital at Fort Bayard is devoted to the treatment ulmonary tuberculosis in officers and enlisted men of the Army in beneficiaries of the soldiers' home.

ort Bayard is situated in Grant County, N. Mex., in the extreme thwestern part of the State. On account of the southern loca- n of the hospital, it is generally assumed by those unfamiliar with local conditions that the climate is very warm; but the altitude, 65 feet, largely counterbalances the influence of the southern sun and renders the climate cool rather than warm. The usual viciss tudes of the seasons are experienced. In the winter there is occ sional snow; frosts occur nearly every night; rarely there is seve cold approaching the temperature of zero Fahrenheit, but such col is of brief duration. On the whole the winters are relatively warn dry, and clear. In the summer the heat is tempered by the dryne of the air, with the resulting diathermancy. The fact that summ is the time of the chief precipitation also exercises an importa effect upon the temperature, clouds and rain very frequently bei present during what would otherwise be the hottest portion of th days. These factors result in producing singularly cool weathe the summer being far more comfortable for the human organis whatever the thermometer readings, than that of the greater pa of the Northern States of the East and of the Mississippi Valle For the treatment of tuberculosis the peculiar excellence of th climate of Fort Bayard consists in the fact that it is one that avoi harmful extremes of temperature, yet in its diurnal and annu variations affords a sufficient stimulus to the human organism favor activity of the metabolic processes.

It is desired to invite especial attention to the need of increas accommodations for enlisted patients. The capacity of the enliste men's infirmary has been heretofore given as 66 beds. (See annu report for 1912.) If the estimation of the capacity of the hospit be made in the usual way, that is, to include only the beds availab in wards and rooms (not including a certain number of beds plac upon the porches), the capacity of the enlisted men's infirmary only 137 beds. Similarly, the capacity of Annex No. 1 of the inf mary, rated at 55 beds, is only 28 beds if beds in porches be exclud from consideration. Annex No. 2, occupied for the first time duri the last calendar year, is considered to have a capacity of 40 bed Counting only the bed space available within the two wards of th building we have a total of only 24 beds. The infirmary with i annexes is supposed to have a capacity of 161 beds and actual accommodated 140 patients on December 31, 1916. Yet if eve patient had been adequately protected against the inclemency of t winter weather the number would have been only 89. Under t present arrangement a certain number of patients are necessari subjected to discomfort if not actually dangerous exposure duri the occasional storms of winter. There can be no question th adequate housing should be provided for this class of patients whi includes the most serious cases, so that each patient who is lodg habitually upon one of the porches can also have a bed within t building in which in case of need he can take refuge. Such provisi is now made for the patients quartered in the officers' and wome infirmaries.

Paragraph 334, Manual for the Medical Department, 1916, pr vides that no cases of surgical tuberculosis should be sent to Fo Bayard unless the condition of the patient is such that benefit m be expected from hygienic treatment in which outdoor life plays prominent part or, in other words, unless the patient is not stric confined to his bed by the nature of his disease. This provision w framed partly with the idea that patients so ill with surgical tuberc losis as to be unable to leave their beds within the wards would re but little advantage from the climatic treatment as practiced at t hospital. But another consideration was also taken into accou nely, that the scanty and ill-arranged space devoted to surgical es in the present infirmary might easily be overtaxed if the number this class of patients were not strictly limited by exclusion of ients incapable of locomotion. Surgical tuberculosis is, however, uliarly amenable to heliotherapy, a mode of treatment for which sunny and cool climate of New Mexico is especially adapted. ses of surgical tuberculosis, therefore, need and should have wards this institution so arranged that beds could easily be moved ween the wards and porches so that even the sickest patients ght receive the benefits of the sun baths.

t would seem that this institution has now passed beyond the perimental stage and that adequate provision should at once be de for the proper accommodation of its patients. That a new l enlarged infirmary is urgently needed is sufficiently apparent m the facts just cited and the need is seen to be the greater if reflects that the proposed and partly effected increase in the of the Army will necessarily in time lead to a considerable rease in the number of patients at this hospital. The recommendation heretofore repeatedly made is therefore renewed that mediate steps be taken with a view to securing the necessary propriation for a new building.

The number of patients admitted during the year, including neficiaries of the soldiers' home and civilians, was 778, being an rease of 40 over the preceding year. The average number of days hospital for each case was as follows:

	Officers.	Cadets.	Enlisted men.	Beneficiaries of soldiers' home.	Civilians.	
					Male.	Female.
ical	112.2	295.76	102.58	132.80	112.11	118.79
ical			10.57		17.00	14.05
real			9.55			
tal	4.0		13.00			

The following table shows the movement of the sick, together with principal sources of admission during the calendar year 1916, ilians being included:

	Officers and enlisted men.	Civilians.	Beneficiaries of soldiers' home.	Total.
missions:				
From command	128	13		141
By transfer	280	6		286
Otherwise	8	66	277	351
Remaining Dec. 31, 1915	172	27	164	363
Total	588	112	441	1,141
positions:				
Returned to duty	174	11		185
Died	29	8	33	[1]70
Discharged for disability	179			179
Discharged expiration term	3			3
Transferred to other hospitals	2			2
Otherwise disposed of	17	66	247	330
Remaining Dec. 31, 1916	184	27	161	372
Total	588	112	441	1,141

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[1] Does not include one civilian, not on sick report, who died at the post.

Fourteen cases were admitted for suspected pulmonary tuber losis in which the diagnosis was not confirmed. Two cases were un treatment for tuberculosis in which the lungs were apparently involved. Two cases died en route to this hospital and are included in the above table. Of the cases classed as tuberculosis, were returned to duty. One case was returned to duty in 1916 has since been readmitted. Still another case has been twice turned to this hospital for treatment for tuberculosis, although diagnosis of pulmonary tuberculosis has never been indisputa established. The number of cases under treatment on December 1915, was 363. The number of cases under treatment on Decem 31, 1916, was 372. The total number of cases treated during the y was 1,141, of which 798 were cases of tuberculosis.

The causes and number of deaths which occurred at this hosp during the year are shown in the following tabulation:

Fracture of skull	1	Chronic pulmonary tuberculosis	
Lobar pneumonia	1	Tuberculosis meningitis	
Tuberculosis peritonitis	2	Pernicious anaemia	
Acute cardiac dilatation	3	Acute fatty degeneration of the liver	
Gunshot wound of the heart	1	Traumatic hemo-pneumothorax incident to gunshot wound of chest, etc	
Pyogenic infiltration and gangrene, both lungs	1	Acute congestion of lungs	
Sclerosis of coronary arteries	1		
Cerebro-spinal meningitis	1		

There were 74 deaths in all, of which number 2 were officers, enlisted men, 33 beneficiaries of the soldiers' home, and 12 civili

The above table includes 1 case of pulmonary tuberculosis (civili not on sick report; 1 case of fracture of skull (civilian), who die the vicinity of the hospital; 1 case of acute cardiac dilatation (soldi who died en route to this hospital; and 1 case of pulmonary tu culosis (soldier), who died en route to this hospital.

There were 179 patients discharged on certificate of disabil The causes were as follows:

Pulmonary tuberculosis	
Chronic pleurisy	
Hernia, inguinal, recurrent	
Diabetes	
Total	

The following is a condensed statement of the surgical operat performed at this hospital during the year:

	Officers.	Enlisted men.	Total.	Army Nurse Corps.	Civilians.	Total.
Nose	5	7	12		14	14
Ear					10	10
Throat	2	4	6		39	39
Thorax	1	7	8		3	3
Eye		1	1		2	2
Abdomen		6	6		14	14
Gynecological, external					1	1
Gynecological, internal					19	19
Lower extremities		1	1	2	1	3
Major, not included					1	1
Minor, not included		6	6		9	9
Genitourinary		2	2		6	6
Anus and rectum		4	4		6	6
Total	8	38	46	2	125	127

he above tabular statement includes 10 cases of artificial pneumo- rax, not included in the report of surgical operations (Table . 66).

he treatment of pulmonary tuberculosis by artificial pneumo- rax has been employed at this hospital since January 12, 1913. ty-nine patients have been submitted to this treatment; of these, were cases of pulmonary tuberculosis and one of bronchiectasis. 40 cases the compression was successful; 9 could not be com- ssed on account of pleural adhesions. As to results, 23 cases re had their disease arrested and are in good health, as far as own; of these, 18 cases have left the hospital: 7 cases had exten- ıs in the healthier lung and treatment had to be discontinued; 5 d; and 2 left the hospital. Two cases died shortly after compres- n, of heart failure. In the case of bronchiectasis the treatment l to be discontinued on account of dysopnoea. Five cases left the pital soon after compression. Twenty of the above cases had ural exudate as a result of the infection of pneumothorax. Of se, 2 developed empyema. In 1 of the cases a Schede opera- n was performed with the result of complete recovery.

he following is a statement of the hospital laboratory work done ing the year:

minations of—		Wassermann tests	312
Sputum	9,474	Human autopsies	65
Blood	212	Histopathological sections of human tissues	892
Pleural exudates	17	Miscellaneous examinations	71
Urine	1,014		
Feces	21		
Gastric contents	11		

n addition to the above, considerable experimental and research rk on complement-fixation and other subjects connected with erculosis has been done.

he number of completed cases of pulmonary tuberculosis in 1916 s 474. Important complications were present as follows:

erculous laryngitis	59	Tuberculous spondylitis	2
hilis	33	Pulmonary abscess	1
phinism	3	Pulmonary osteoarthropathy	1
onic tuberculous otitis media	17	Aneurysm of arch of aorta	1
hritis	3	Mitral regurgitation	1
riosclerosis	2	Fecal fistula	1
pyema	3	Epilepsy	1
arial fever	4	Bronchial asthma	1
erculous enteritis	11	Tuberculous meningitis	1
erculous arthritis	4	Tuberculous prostatitis	1
erculous fistula in ano	13	Manic depressive psychosis	1
ntaneous pneumothorax	2	Tuberculous pyopneumothorax	1
erculous peritonitis	2	Chronic frontal suppurative sinusitis	1
urisy with effusion	8	Tuberculous neuritis	1
aract	2	Bronchiectasis	1

The result of treatment in completed cases[1] of pulmonary tub culosis was as follows:

Class.	Number.	Apparently cured.		Arrested.		Apparently arrested.		Quiescent.		Improved.		Unimproved.		Die
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.
Incipient	35	1	2.85	10	28.57	3	8.57	5	14.28	14	40.00	2	6.06	....
Moderately advanced	203	4	1.97	7	3.44	....	.....	9	4.43	120	63.05	47	23.14	7
Far advanced	234	....	.....	....	.....	....	.....	4	1.28	97	41.25	75	32.05	58
Acute miliary	1	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	1
Total	473	5	1.05	17	3.59	3	0.634	18	3.8	240	50.73	124	26.21	66

The above table does not include one patient who deserted. includes 25 cases under treatment one month or less.

The following table shows the result of treatment in all cases pulmonary tuberculosis:

Cases.	Number.	Apparently cured.		Arrested.		Apparently arrested.		Quiescent.		Improved.		Unimproved.		D
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.
Incipient	76	4	5.26	15	19.73	11	14.47	12	15.79	28	36.41	6	7.9	....
Moderately advanced	340	9	2.35	12	3.52	3	.88	21	6.17	200	58.82	88	25.88	7
Far advanced	381	....	.....	1	.26	1	.26	9	2.36	161	42.26	151	39.63	58
Acute miliary	1	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	1
Total	798	13	1.62	28	3.5	15	1.86	42	5.26	389	48.63	245	30.7	66

The above table includes 25 cases under treatment one mont less and 40 cases admitted during the month of December, 1 and remaining December 31, 1916.

The mean strength of the personnel on duty during 1916 wa follows:

Officers (medical officers and chaplain).. 1
Officers, patients, on light duty..
Post noncommissioned staff...
Detachment Quartermaster Corps...
Detachment Hospital Corps on duty.. 1.
Detachment Hospital Corps under treatment for tuberculosis, but carried as members of the command..
Detachment headquarters band, Eleventh Cavalry..............................
Army Nurse Corps...

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

Although this hospital was originally intended for the treatn especially of diseases in which hydrotherapy is indicated, becaus the need for the evacuation of the sick from the base hospitals in Southern Department to avoid any congestion, it has served in as a general hospital for both the Southern and Central Departm Paragraph 1441, Army Regulations, 1913, provides that—

> The Army and Navy General Hospital, Hot Springs, Ark., is under the dir of the Secretary of War, and is devoted to the treatment of the officers and en men of the military and naval service of the United States, cadets at the United Military and Naval Academies, officers of the Revenue-Cutter (now Coast G

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[1] By "completed cases" are meant all cases which have terminated their connection with the h in any way.

vice, officers of the Public Health Service, and honorably discharged soldiers and ors of the Regular and Volunteer Army and Navy of the United States, for such ases as the waters of the Hot Springs of Arkansas have an established reputation benefiting.

During the year the following improvements and additions were de:

Porches and plumbing which had been omitted in the construction Hospital Corps barracks.

The ward additions of 1915, the Hospital Corps barracks, and a set noncommissioned officers' quarters were inclosed with screening. New plumbing was installed in the douche room of the old officers' hhouse, the tile floor relaid, and a new wall control, sitz, shower, dle, and perineal douche fixtures were added, making a third nplete hydrotherapeutic room.

A one-story porch was erected over the kitchen door of the Nurse rps dormitory.

The porches of all the ward buildings were inclosed with sash and nings provided which gives sufficient protected spaces for 133 litional beds for patients, bringing the present bed capacity of the spital up to 322.

There were no additional buildings constructed during the year.

The total number of admissions during the period covered by this ort was 817, a decrease of 43 from the preceding year. Of the mber of admissions to sick report, 28 were officers of the Regular my, 3 were officers of the National Guard, 6 retired officers, 198 isted men of the Regular Army, 113 enlisted men of the National ard, 22 retired enlisted men, and 447 civilians, which include norably discharged soldiers and sailors of the Army, Navy, Marine rps, civilian employees, and Army Nurse Corps. The daily average mber of patients treated in hospital was 105.63.

The following tables show the principal causes of admission and the thod of disposition of all cases:

maining in hospital Dec. 31, 1915		101
missions:		
Alcoholism	2	
Diseases of the respiratory system	7	
Diseases of the heart	13	
Diseases of the urinary system	12	
Dysentery	4	
Eczema	5	
Myalgia	10	
Rheumatism, articular	38	
Rheumatism, muscular	41	
Sprains and muscular strains	7	
Gastritis	7	
Hernia, inguinal	9	
Appendicitis	9	
Diseases of the kidneys	27	
Arthritis	160	
Syphilis and results	44	
Gonorrhea and results	38	
Carcinoma	2	
Diseases of the circulatory system	100	
Malarial infections	9	
Pulmonary tuberculosis	3	
All other causes	270	
Total admissions		817
Total to be accounted for		918

Dispositions:

Returned to duty	260
Died	23
Discharged on surgeon's certificate of disability	25
Transferred	6
Discharged from hospital (civilians)	532
Otherwise disposed of	10
Remaining in hospital Dec. 31, 1916	62
Total accounted for	

DEATHS.

Twenty-three deaths occurred during the year, including o officer on the active list of the Army, one officer of the Nation Guard on active service, and two enlisted men of the Regular Arm from the following causes:

Endocarditis, chronic
Broncho pneumonia
Nephritis, interstitial, chronic
Lobar pneumonia
Raynaud's disease of right lower extremity
Shock following prostatectomy
Mitral insufficiency
Uremia
Apoplexy
Thrombosis, coronary artery
Lukemia, spleno-myelogenous
Carcinoma, ascending colon
Gastroenteritis
Amoebiasis, chronic
Leptomeningitis, malarial
Aortic stenosis; aortic regurgitation
Cerebral hemorrhage
Myocarditis, chronic
Heart failure; hypostatic congestion

Total

DISCHARGES FOR DISABILITY.

During the year 25 enlisted men were discharged on account disability. The causes were distributed as follows:

Pain and tenderness about arch and plantar surface of right foot, following old injury
Nephritis, parenchymatous, chronic
Nephritis, interstitial, chronic
Nephritis, diffuse, chronic
Pyelonephritis, chronic, right
Pyelonephritis, chronic, left
Arthritis, polyarticular, chronic, both feet
Arthritis, deformans, right hip, following chronic rheumatic arthritis
Arthritis, chronic, left knee; halux valgus, left
Arthritis, chronic, left knee, with enlargement of all bones of the joint
Arthritis, chronic, left sacro-iliac
Arthritis, chronic, involving lower dorsal and all lumbar vertebræ
Arthritis, chronic, left shoulder, with marked atrophy of all muscles of shoulder girdle
Arthritis, chronic, right hip
Locomotor ataxia
Osteoarthritis, right hip, following chronic rheumatic arthritis
Mitral insufficiency, organic, sequel to acute rheumatic endocarditis
Myalgia, lumbar, chronic
Neuritis, chronic, sciatic, right
Neuritis, chronic, both shoulders, with atrophy of muscles of shoulder girdles
Syphilis, intractable, secondary

ıor, cerebral, pontine process	1
umatism, articular, chronic, left wrist, both knees and ankles	1
ective hearing, both ears	1
Total	25

SURGICAL OPERATIONS.

'ollowing is a résumé of the surgical work done during the year:

Name of operation.	Disease or injury.	Number of cases.	Successful.	Died.	F ther.	Local.
	EYE.					
action, combined operation	Senile cataract	1	1	....	....	1
splantation	Pterygium	3	3	....	...	3
-capsulotomy, 1; iridectomy, 1	Secondary cataract	2	2	....	....	2
ctomy	Leukoma	1	1	....	....	1
ttage, 1; cauterization, 1	Corneal ulcer	2	2	....	....	2
	NOSE.					
ıectomy	Adenoids	5	5	....	....	5
inectomy, partial, 1; turbinecny, 1.	Hypertrophied turbinate	2	2	....	....	2
	MOUTH AND PHARYNX.					
illectomy	Tonsilitis	26	26	....	....	26
	ABDOMEN.					
roenterostomy	Pyloric ulcer	2	2	....	2	....
uson's modified, 2; Bassini's ıdified, 7.	Inguinal hernia	9	9	....	9	....
apubic cystotomy	Septic cystitis	2	2	....	2	....
	Prostatic hypertrophy	8	8	....	8	....
	Tumor of urinary bladder	1	1	....	1	....
endicectomy	Appendicitis	5	5	....	5	....
centesis, abdominal	Hepatic cirrhosis with ascites	1	1	....	1	....
ırotomy, exploratory	Suspected cholecystitis	1	1	....	1	....
sion of scar	Old appendiceal scar	1	1	....	1	....
ecystostomy	Cholecystitis	1	1	....	1	....
	Cholelithiasis	1	1	....	1	....
ision of sac	Ventral hernia	1	1	....	1	....
rectomy, partial	Hourglass stomach	1	1	....	1	....
ion and drainage	Appendiceal abscess	1	1	....	1	....
	Perinephritic abscess	1	1	....	1	....
	Abscess, huge, right hypochondrium	1	1	....	1	....
	ANUS AND RECTUM.					
ision	External hemorrhoids	1	1	....	1	....
	GENITO-URINARY.					
ision of sac, 3; paracentesis, 4	Hydrocele	7	7	....	7	....
ıidectomy	Tubercular testis	1	1	....	1	....
umcision	Redundant prepuce	3	3	....	3	....
sion of prepuce	Phimosis	5	5	....	5	....
sion and drainage	Epididymitis, suppurative	1	1	...	1	....
	Lymphadenitis, inguinal, suppurative	2	2	....	2	....
	SKIN AND CELLULAR TISSUES.					
ision, partial	Periostitis, plantar surface oscalcis	1	1	....	1	....
ation and excision	Varicose veins	1	1	....	1	....
ision	Tumor (fibroma), arm	1	1	....	1	....
sion with extraction	Bullet embedded in thigh	1	1	....	1	....
ision of nail	Ingrown toenail	1	1	....	....	1
terization, ulcer of face	Ulcer of face	1	1	....	....	1
	JOINTS.					
ıcentesis	Synovitis, knee joint	1	1	....	....	1
	AMPUTATIONS.					
putation of thigh, lower third	Gangrene of foot (Raynaud's disease)	1	1	....	1	....
putation of toe	Perforating ulcer, great toe	1	1	....	1	....
otal		108	108	....	63	45

LABORATORY.

Following is an abstract of the laboratory work done during year:

Wassermann tests	
Bacteriological examinations	
Feces	
Blood examinations	
Milk examination (fat and bacteriological)	
Sputa	
Phenolsulphonephthalein tests	
Urine examinations	1,
Tissues, sectional	
Luetin tests	
Urethral smears	
Autogenous vaccines	
Spinal fluid examinations	
Moro's test	
Complement fixation test for gonorrhea	
Total	3,

PERSONNEL.

The mean daily strength of the personnel on duty during the y was as follows:

Medical officers	
Other officers (dental surgeon)	
Post noncommissioned staff	
Medical Department and Quartermaster Corps	7
Army Nurse Corps	
Mean aggregate	8

DEPARTMENT HOSPITAL, MANILA, P. I.

This hospital is the general hospital for the Philippine Departm It differs from the general hospitals in the United States in that i not directly under the control of the Surgeon General, but owing its geographic location it is under the authority of the departm commander. It is situated on the corner of Calle Arroceros and C Concepcion on a plot covering about 4 acres, adjoining the med supply depot. It consists of 30 separate buildings used for the lowing purposes: Receiving office, quarters for the officer of the d administration building; eye, ear, nose, and throat clinic and X- department; isolation ward, officers; women, obstetric and operat rooms; five buildings for wards for enlisted men; tailor shop, ni men's and cooks' quarters; post exchange; library and barber sh general and noncommissioned officers' mess and supply rooms; is tion cells; carpenter shop; morgue; quartermaster's storeroom corral together. The nurses are quartered in a long frame build on Calle Concepcion and are very comfortably fixed. There is set of officers' quarters on the reservation, and it has been custom to assign it to the obstetrician. The buildings are of the old Spa type, long, one-story, running out from a central patio or court. T require constant repairs of more or less extent to keep them i serviceable condition. The plumbing and wiring throughout hospital are old and obsolete in design, although the former has b

owed in the ward toilets during the year. There can still be con-
crable improvement in the lighting system. All the steam, gas,
hot-water pipes are above ground, running just under the eaves
he porches; they are readily accessible for repairs but very un-
tly. All buildings are well screened. The sewerage is surface,
outlet into the Pasig River. At high tide and heavy rains or
ds the water backs up and floods the grounds.

uring the year an artesian plant has been completed, consisting
well bored to about 780 feet to a stratum of very potable water;
oncrete structure over the well, housing an electrical pump, with
),000-gallon tank for storage. This water is slightly above the
pted standard of hardness, but has a very low bacterial count
no gas producers, and has replaced the distilled water formerly
l in large quantities.

he sterilizing and water-heating plant of the operating room has
n placed in a separate room. It is now housed in a concrete, tiled,
well-ventilated addition to the operating and anesthetizing rooms.
s change has added much to the comfort of those on duty, as the
ner arrangement caused an almost unbearable heat when the ster-
rs were in operation, and has also facilitated the handling of the
ruments, etc., by the nurses. A new battery of steam and hot-
er heaters has also been installed in this department.

uring the year the installation of gas throughout the hospital to
ace the steam appliances for sterilizing purposes was started, and
December 31 a steam boiler and a hot-water heater using gas as a
were erected and in working order, supplying steam for the
hen of the general mess and hot water for the entire hospital.
h sterilizing apparatus throughout the hospital, in the wards,
rating room, and laboratory, has been equipped with a gas burner;
have been thoroughly tested and found satisfactory in operation,
gh requiring somewhat more care to avoid injury to apparatus
the former method of supplying steam from a central plant.

as stoves for the general mess, sick officers' mess, and nurses' mess
e been ordered from the States. When these are installed the
re steam and heating system of the hospital will be using gas.

he substitution of artesian for distilled water and of gas as fuel
permitted the closing of a steam and distilling plant running three
orsepower boilers. The latter are in bad condition and would
e had to be replaced if the old system were continued. As now
nged each apparatus is always ready for use and can be operated
pendently of the others. The use of gas instead of coal is not
more convenient and cleanly, but will undoubtedly be more
omical as well. The local gas corporation is at present enlarging
lant and promises a sufficient supply of gas.

he old motor ambulance, Keeton make, has been condemned and
late-model White cars procured. The orderly has been mounted
motorcycle. A motor truck for heavy hauling to replace the
ent escort wagon, a light truck of the Ford model for market pur-
s, and a roadster of the same model to take the place of the
herty wagon are urgently needed to motorize the transporation
e hospital and increase its efficiency, and will greatly economize
e maintaining of this department.

The climate is tropical, with a rainy season starting about Jul with typhoons of more or less severity. The rains last general through November. The months of December, January, and Fe ruary are very comfortable; a little warm during the day, wi delightfully cool nights. It begins to get warm in March, and Ap May, and June are hot and dry. There is very little malaria, b some dengue, sporadically and in small epidemics.

The following table shows the movement of the sick, together wi the principal souces of admissions, during the calendar year 19 civilians and Philippine Scouts being included:

	Officers and enlisted men.	Philippine Scouts.	Civilians.
Admissions:			
Command	70	....	7
Transfer	1,081	61	32
Otherwise	104	....	591
Remaining, 1915	55	7	18
Total	1,310	68	648
Dispositions:			
Duty	842	41	11
Died	7	1	14
Discharged for disability	1	21	....
Transferred to Letterman General Hospital	347	....	2
Transferred to other hospitals	33	2	6
Otherwise disposed	3	1	602
Remaining, 1916	77	2	13
Total	1,310	68	648

The following tabulation shows the deaths, with causes, for year 1916:

Causes.	Enlisted men.		Civilians.
	American.	Philippine Scouts.	
Abscess of liver	1	....	1
Aortic stenosis	1	....	....
Asphyxiation	....	....	1
Carcinoma of liver	....	....	1
Cerebral homorrhage	1	....	1
Colitis	....	....	1
Diphtheria	....	....	1
External causes	3	....	1
Gastritis	....	....	1
Lymphosarcoma of mediastinum	....	1	....
Nephritis	....	....	1
Osteosarcoma of skull	....	....	1
Obstruction, bile duct	....	....	1
Peritonitis	1	....	....
Pneumonia, lobar	....	....	1
Subdural hemorrhage	....	....	1
Tuberculosis, pulmonary	....	....	1
Total	7	1	14

he following is a tabular statement of discharges on certificate lisability:

Causes.	In line of duty.	Not in line of duty.
ylosis, left elbow	1	
losis, right shoulder	1	
ritis, chronic, both knees		1
stitutional psychopathic state		1
entia precox		4
feet		1
, chronic, right	1	
osy	2	
itis, optic nerves	1	
ilis, tertiary		1
n, old, left ankle	1	
rculosis, pulmonary	7	
Total	14	8

TE.—1 Enlisted man (white) and 21 enlisted men (Philippine Scouts).

he following tabular statement shows movement of the insane:

	Officers and enlisted men.	Philippine Scouts.	Civilians.	Total.
sferred to Letterman General Hospital	53			53
arged on certificate of disability		5		5

n active surgical clinic is maintained at this hospital. The owing is a condensed tabular statement of surgical operations ing the year 1916:

	Officers.	Enlisted men.	Philippine Scouts.	Total.	Retired enlisted men.	Army Nurse Corps.	Civilians.	Total.	Grand total.
ium		1		1			2	2	3
	2	1	1	4			3	3	7
		2		2		1	3	4	6
		11		11			2	2	13
at		15		15			17	17	32
		4		4					4
							1	1	1
er extremity		5	1	6			3	3	9
rax		2	1	3			2	2	5
omen (laparotomy)	2	20		22	1		19	20	42
ecological, external							22	22	22
ecological, internal							25	25	25
er extremity		6	1	7			5	5	12
or (not included)		18	2	20			10	10	30
or (not included)		7		7			1	1	8
Total	4	92	6	102	1	1	115	117	219

perations of eye and ear clinic are shown above to complete the le, although it is a separate service. There were 74 deliveries at m in the obstetrical ward, with 2 stillbirths and 1 maternal death.

The following is a list of major operations requiring a genera anesthetic, and not otherwise accounted for:

Cholecystostomy	
Circumcision	
Drainage of urinary abscess	
Epididymotomy	
Extirpation of fistulous tracts	
Incision and drainage of abscesses	
Ligation and excision (hemorrhoids)	1
Ligation and excision (variocele)	
Ligation and excision (varicose veins)	
Opening of dento-alveolar abscess	
Posterior urethrotomy	
Total	

There were 8 minor operations for circumcision, requiring a loca anesthetic, and not otherwise accounted for.

List of dressings for the calendar year ending Dec. 31, 1916:

Officers	1,8
Enlisted men	5,4
Civilians	6,7
Total	14,0

The following is a report of the hospital laboratory work don during the year:

Examination of—		Examination of—	
Blood	5,862	Feces	3,2
Urine	3,402	Smears and cultures	1,1
Sputum	1,884	Water examinations, bacteriological	5
Pathological sections	158	Chemical, biological, and miscellaneous	6
Animal injections	144		
Wassermann reactions	4,739		

The mean strength of the personnel on duty at this hospital for th year was as follows: Medical officers, 8; dental surgeons, 2; Arm Nurse Corps, 24.03.

DETACHMENT MEDICAL DEPARTMENT.

Strength of detachment Dec. 31, 1916.

Sergeants, first class	
Sergeants	
Corporals	
Lance corporals	
Acting cooks	
Privates, first class	
Privates	
Total	

Gains during the year 1916.

By reenlistment	
By transfer	
Total	

Losses during the year 1916.

Discharged by expiration term of service	
Discharged by sentence general court-martial	
Transferred	
Died	

ed	2
ped	1
ughed and transferred to Army Reserve	1
Total	35

Present in the service Dec. 31, 1916.

ants, first class	9
ants	7
rals	4
s	5
ıtes, first class	60
ıtes	13
Total	98

e were 83 courts-martial during the year, as follows:

neral courts-martial (medical department)	5
mmary courts-martial (medical department)	35
mmary courts-martial (patients)	43
Total	83

ARMY NURSE CORPS.

ıgth Dec. 31, 1916	24
ed Jan. 1 to Dec. 31, 1916	18

Lost during same period.

ischarge	0
ansfer	18
ıgth Dec. 31, 1915	24

DEPARTMENT HOSPITAL, HONOLULU, HAWAII.

he department hospital is the general hospital for the Hawaiian artment. In addition to serving as a post hospital for the isons in and near Honolulu, cases of a serious nature and those iiring special treatment are sent here from Schofield Barracks.

he capacity of the hospital is 275, which number may be increased bout 400 beds, if emergency requires, by utilizing the porches.

he staff and equipment are such as to enable it to care for all ses of cases other than the few which require climatic treatment ınusual measures.

he buildings occupy a narrow strip of ground along the rim of a f which faces the south shore of the island and is about 400 yards ant therefrom. The location is attractive and, save for lack of e, desirable. An additional plot of ground of 12 acres adjoining he west is needed badly to permit room for expansion. This plot, ever, can be made available only by purchase or in exchange for ernment lands. An appropriation for the purchase or consional action sanctioning the exchange will be necessary for curing this additional ground.

Vhen considering the fact that but two and one-half years have sed since it was decided to build up the department hospital on present site, wonderful progress has been made in developing from nall plant for a battalion post to its present state of efficiency. ile the hospital is fairly complete as to buildings and equipment, ould be rendered more convenient and susceptible to expansion.

Among the needs cited by the commanding officer, some of which require the appropriation of funds, are the following:

Acquirement of additional land; a cold storage plant; shelter for transportation (already requested and favorably considered by higher authority, but shortage of funds has prevented appropriations therefor); quarters for medical officers and noncommissioned officers; screening of wards; a laundry; passageway, medical clinic to ward block; covered way, administration building to medical clinic; increased accommodations for Roentgen laboratory; landscape gardening; kitchen storerooms; extensions of service roads; disinfecting chamber; electric, silent-call signal system for private rooms; an impervious kitchen floor; raising the level of low lands to eliminate mosquito breeding, and to make land available for hospital purposes (gardens and pasture, with service buildings).

The following table shows the movement of the sick, together with the sources of admission during the calendar year 1916:

	Officers and enlisted men.	General prisoners.	Army Nurse Corps.	Civilians.	Total.
Admissions:					
Command	112		4		116
Transfer	1,330	1		15	1,346
Otherwise	77			385	462
Remaining, Dec. 31, 1915	79			19	98
Total to be accounted for	1,598	1	4	419	2,022
Dispositions:					
Duty	1,351	1	4		1,356
Died	9			7	16
Discharged for disability	1				1
Transferred to Letterman General Hospital	153			3	156
Otherwise disposed of	4			396	400
Remaining, Dec. 31, 1916	80			13	93
Total accounted for	1,598	1	4	419	2,022

There were 16 deaths during the year. Of this number 1 was an officer, 8 enlisted men, 1 retired enlisted man, 6 civilians.

The following were the causes of deaths:

Apoplexy	1
Drug poisoning	2
Gunshot wound	1
Kidney disease	2
Pulmonary edema (secondary to gastric ulcer)	1
Tuberculosis	2
Carcinoma	1
Fracture of skull	1
Heart disease	1
Peritonitis	1
Senility	1
Septicemia	2

But one enlisted man was discharged during the year on certificate of disability. This discharge was for disease contracted not in line of duty.

Forty-three insane patients were treated at this hospital during the year. Of this number 37 were enlisted men, 1 a retired soldier, and 5 civilians. The insane in the military service from this hospital are transferred to the Letterman General Hospital, San Francisco, Cal.

Four hundred and ninety-nine operations were performed, of which number 21 were officers, 299 enlisted men, 1 officer and 31 enlisted men of the Navy, 2 Army Nurse Corps, and 145 civilians.

The following tabular statement, condensed, will furnish an idea of the surgical work performed:

Cranium	2	Abdomen, laparotomy	80
Eye	20	Gynecological, external	6
Nose	48	Gynecological, internal	12
Ear	5	Lower extremity	36
Throat	102	Major operations not included	39
Face	4	Minor operations not included	105
Neck	6	Obstetrical operations	5
Upper extremity	23		
Thorax	6	Total	499

There was a total of 72 confinement cases cared for during the year.

The following is a statement of the laboratory work done for the period covered by this report:

Wassermanns		3,786	Stomach contents	94
Urine examinations		3,087	Malarial hunts	57
Gonococcus, smears for		1,803	Tissue sections	44
Feces		1,076	Inoculations of animals	39
Sputa		713	Serum agglutinations	34
Blood counts		608	Kidney-function tests	33
Miscellaneous		351	Blood cultures	24
Vaccines, autogenous, prepared		179	Milk, fat examinations	23
Vaccines administered		177	Milk, bacterial examinations	9
Treponema pallida, examinations for		132	Autopsies	9
Spinal fluids tested:			Water, bacterial	9
Cell counts	53		Water, chemical	2
Gold chloride	6			
"Kaplan"	6		Total	12,407
"Noguchi"	53			
		118		

In the Roentgen laboratory 3,024 Roentgenograms were made, of which number 2,676 were plates and 348 dental films. In addition 3,184 Roentgenoscopic examinations were made.

The dentist on duty at this hospital reports 1,311 operations on the teeth and gums, 597 fillings, 7 bridges, 2 artificial dentures, and 10 fractures, making a total of 1,927.

The mean strength of the personnel on duty at the hospital for the year was:

Officers	11.46
Enlisted men	104.48
Army Nurse Corps	11.87
Mean aggregate	127.81

PROVIDENCE HOSPITAL.

The act approved July 1, 1916, having appropriated $19,000 for support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon General of the Army, for relief afforded was as follows:

Patients in hospital July 1, 1916	85
Admitted during the year	1,338
Total number treated	1,423
Average number admitted per month	119
Number remaining in hospital June 30, 1917	74
Total number of days' treatment afforded	32,333
Average number of days' treatment per patient	22
Average number of patients treated per day	92
Longest term of treatment (days)	365
Shortest term of treatment (days)	1
Number of patients in hospital during the whole year	2

LABORATORIES.

ARMY MEDICAL SCHOOL.

The work in the bacteriological laboratories has been of a varied character, as shown in the following summaries:

TYPHOID-FEVER PROPHYLACTIC.

Vaccine prepared in the laboratory was distributed during the six months' periods as follows:

	June 30, 1916.	Dec. 31, 1916.	June 30, 1917.
Army	340,596	411,278	1,364,241
Navy	84,585	74,862	424,587
National Guard	33,466	....	....
Various Government departments	1,148	1,981	684
Civilians and civilian institutions	536	14,440	927
Total	460,331	502,561	1,790,439

No changes have been made in the preparation of the typhoid vaccine, since our results at present in use have been all that could be desired.

PARATYPHOID-FEVER PROPHYLACTIC.

Mixed paratyphoid vaccine prepared in the laboratory was distributed during the six months' periods as follows:

	Dec. 31, 1916.	June 30, 1917.
rmy	352,598	487,663
avy	....	10,000
ivilians and civilian institutions	....	3
Total	352,598	497,666

Miscellaneous vaccines prepared and distributed to Army posts during the six months periods.

	June 30, 1916.	Dec. 31, 1916.	June 30, 1917.
Gonococcus:			
Prepared	2,750	8,569	4,681
Distributed	1,719	6,724	5,030
taphylococcus:			
Prepared	422	1,536	1,232
Distributed	316	677	890
treptococcus:			
Prepared	435	1,035	1,986
Distributed	200	628	1,296
taphylococcus-acne:			
Prepared	300	876	925
Distributed	376	516	876
taphylococcus-streptococcus prepared and distributed	....	24	....
Colon prepared and distributed	....	144	400
Pertussis prepared and distributed	....	12	....
trepto-pneumo-sero-bact prepared and distributed	....	30	....
nfluenza bacillus, streptococcus pyogenes, pneumococcus, micrococcus catarrhalis, staphylococcus pyogenes aureus, staphylococcus pyogenes albus prepared and distributed	....	15	....
Bile medium distributed to Army posts	....	101	129

VETERINARY VACCINE.

Vaccine against strangles and the complications of influenza i horses, prepared in the laboratory, was distributed to Army remoun stations as follows: Six months ending June 30, 1917, 93,000 c. c.

Summary of clinical laboratory examinations of typhoid-fever cases.

	For the six-month period ending—		
	June 30, 1916.	Dec. 31, 1916.	June 30 1917.
Examination of typhoid cases	184	214	1
Convalescents examined:			
Positive	1	1	....
Negative	4	17	
Suspected carriers or contacts examined:			
Positive	2	19	
Negative	64	43	[illegible]
Widals:			
Positive	5	10	....
Negative	27	17	[illegible]
Blood cultures:			
Positive	1	14	....
Negative	29	38	[illegible]
Blood cultures from clots:			
Positive	....	....	....
Negative	2	14	
Examination of feces for Bacillus typhosus:			
Positive	....	....	
Negative	60	105	[illegible]
Examination of urine for Bacillus typhosus:			
Positive	....	2	....
Negative	59	49	
Examination of feces for Bacillus dysenteria:			
Positive	....	....	....
Negative	....	1	

No chronic bacillus carriers were detected during the fiscal yea ending June 30, 1917.

Summary of clinical laboratory examinations.

	For the six-month period ending—		
	June 30, 1916.	Dec. 31, 1916.	June 30 1917.
Blood counts:			
Red	62	15	[illegible]
White	66	15	[illegible]
Differential counts	72	18	
Malaria:			
Positive	1	10	
Negative	16	14	
Blood cultures:			
Positive	2	1	....
Negative	2	2	
Urinalyses	98	363	6
Sputa for tubercle bacilli:			
Positive	5	1	
Negative	40	17	
Feces for parasites, etc	19	7	
Water, bacteriological	64	33	[illegible]
Cultures of pus, exudates, etc	75	64	[illegible]
Animal inoculations for immune sera, etc	311	354	4
Histological examinations of operative and post-mortem tissues	207	217	2
Miscellaneous examinations, gonococcus, etc	102	53	

Summary of clinical laboratory examinations—Continued.

	For the six-month period ending—		
	June 30, 1916.	Dec. 31, 1916.	June 30, 1917.
assermann examinations	2,519	1,935	4,547
Positive	315	145	209
Negative	527	647	546
Reexaminations	958	421	464
Tests made on survey	719	632	3,328
xaminations for Treponema pallidum:			
Dark-field microscope—			
Positive	3	1	13
Negative	3	2	6
By staining—			
Positive	....	....	1
Negative	....	....	5
reatments with salvarsan	11	5	5
reatments by bacterial vaccines	106	294	1,141
pinal fluid:			
Globulin	199	75	136
Lange's test	199	75	136
Cell count	195	100	136
ilk	11	13	8
onococcus fixation tests	46	8	11

REPORT UPON WASSERMANN TESTS.

The Wassermann reaction has been performed continuously as a iagnostic test for syphilis. During the year ended June 30, 1917, he total number of Wassermann tests in the laboratory was 6,482, f which 885 were reexaminations; 3,960 were made in accordance ith existing orders calling for a Wassermann reaction on applicants r commission, enlisted candidates for various service schools, ecruits, etc.; and 1,547 examinations of new cases. Of the latter, 87 were of syphilis or suspected syphilis, and 1,060 were from cases ffering with diseases other than syphilis. In addition there were 9 tests made for gonococcus fixation, 219 spinal fluids in three ilutions.

The following table shows the actual results obtained in known yphilitics:

Stage of disease.	Number of cases.	Positive.	Negative.	Per cent positive.
rimary	137	71	66	51.82
condary	171	152	19	88.88
ertiary	162	121	41	74.69
atent	17	10	7	58.82
Total	487	354	133	72.69

CHEMICAL LABORATORY.

The following analyses and examinations were made:

eces	3	Stomach contents	8
testinal concretions	1	Water	14
ow's milk	12	Urine	1,075
oman's milk	2		

X-RAY LABORATORY.

In this laboratory the work done in addition to instruction represented by the following table:

X-ray:		Photographic:	
Radiographs	4,448	Negatives	2
Dental films	1,646	Prints	1,3
Photomicrographs	52	Lantern slides	1
Treatments	164		

Report of the Department Laboratory No. 1, Southe Department, Fort Sam Houston, Tex., for the Calend Year 1916.

INTRODUCTION.

The volume of work done by this laboratory has been increasi each year since its establishment, due to the influx of troops in the department for duty on the border. During 1916 the increa was very marked, more particularly during the second half of t year, on account of the mobilization of the National Guard, t increase in the Regular Army, and the assignment of most of the units to duty on the border. During most of the second half of t year the number of troops in the department has been approximate 150,000.

In August a second department laboratory was established at Paso, and in September a third at Nogales, Ariz., relieving to son extent the strain on this laboratory. Between July 1 and Decemb 31, 1916, the district covered by this laboratory embraced th garrisoned by approximately 75,000 troops.

This laboratory, in addition to work for the department at larg is also the clinical laboratory for the base hospital at Fort Sa Houston, Tex., which averaged 482 patients daily from July 1 December 31, 1916. The laboratory also administers all typho prophylaxis for the post, takes all blood specimens for Wasserma and other serological reactions for the base hospital, and has admi istered most of the autogenous and stock staphylococcus vaccin prescribed locally during the year. Some idea may be gained of t magnitude of the work done for the base hospital by citation of t following approximate daily averages of a few of the routine labor tory examinations for the past six months.

Blood counts, 11; examinations for malaria, 9; chemical a microscopical examinations of urine, 10; examinations of sputum f tubercle bacilli, 4; urethral smears for gonococci, 5; dark field e aminations for *T. pallidum*, 3; blood cultures for organisms of t typhoid group, 6; and agglutinations, 7, as well as approximately Wassermann tests twice a week.

The increase in the amount of work necessitated increases fro time to time in the commissioned and enlisted personnel. Reques for additional personnel were always met very promptly by t department surgeon's office and by the commanding officer of t base hospital. From January to June, 1916, two officers of t Medical Corps were on duty in the laboratory, in June one addition medical officer was assigned as assistant, and in August still anoth

On September 1 a field laboratory, under the direction of Maj. C. L. ole, Medical Corps, of this laboratory, was ordered to the Browns- ille district to handle the paratyphoid situation in the New York ivision, and the field laboratory continued its activities during the ionth of September.

The floor space of the present laboratory is entirely too limited to andle, without congestion, the amount of routine going through. his congestion, however, soon will be corrected, as a new laboratory uilding is now in process of construction and will be completed in ie early part of 1917.

The following general summary of the activities of this laboratory om January 1 to December 31, 1916, is submitted:

	1916, first six months.	1916, second six months.	Total, 1916.	Total, 1915.
lood examinations:				
Blood counts—				
Red	27	78	105	197
White	219	1,944	2,163	564
Differential	145	1,146	1,291	325
Haemoglobin estimation	47	57	104	215
alaria:				
Positive	23	174	197	35
Negative	86	1,401	1,487	360
lood culture (exclusive typhoid group)	3	13	16	....
rine examinations:				
Total	1,139	1,762	2,901	2,178
Positive albumen, no casts	36	160	196	335
Positive casts, no albumen	22	70	92	412
Positive albumen and casts	250	21	271	167
Negative albumen and casts	831	1,511	2,342	1,264
utum examinations:				
Tubercle bacilli—				
Positive	24	62	86	73
Negative	168	590	758	612
ces for parasites	150	187	337	337
ater analyses:				
Chemical	7	16	23	4
Bacteriological	18	57	75	15
ltures of pus exudates, etc	42	28	70	80
imals inoculated, etc.:				
Total	282	261	543	255
Amboceptor	64	16	80	....
Research	18	26	44	....
Vaccine	45	3	48	....
Immune sera	6	9	15	....
Complement	149	207	356	....
istopathological examinations	30	24	54	107
ethral smears:				
Gonococci—				
Positive	140	613	753	140
Negative	106	266	372	175
scellaneous examinations	20	35	55	36
assermann on blood:				
Militia—				
Positive	1	348	349	....
Negative	36	1,517	1,553	....
Reexaminations	....	89	89	....
Regular troops—				
Positive	423	370	793	851
Negative	1,832	104	3,736	2,785
Reexaminations	1,344	503	1,807	2,714
inal fluid:				
Wassermann—				
Positive	13	26	39	14
Negative	59	221	280	24
Globulin increase	22	73	95	55
Colloidal gold	20	78	98	25
Cell count	24	56	80	56
rk field, T. pallidum:				
Positive	22	73	95	32
Negative	80	421	501	114
etin tests	5	....	5	22

	1916, first six months.	1916, second six months.	Total, 1916.	Total, 1915.
Rabies:				
Negri bodies—				
Positive	8	1	9	
Negative	3	1	4	
Antirabic treatment	50	....	50	....
Milk analyses:				
Breast milk	7	4	11	
Cow's milk—				
Chemical	83	69	152	
Bacteriological	83	69	152	
Cultures for diphtheria:				
Positive	....	99	99	
Negative	12	303	315	
Treatment with vaccines	612	382	994	....
Typhoid vaccine administered, doses	551	1,731	2,282	....
Paratyphoid vaccine administered, doses	....	27	27	....
Necropsies	4	14	18	
Stomach contents	10	37	47	
Malt beverages (alcohol contents)	1	16	17	
Complement fixation tests:				
Glanders	....	18	18	....
Gonorrhea	....	116	116	....
Autogenous vaccines (prepared)	37	22	59	
Chemical blood analyses:				
Blood sugar	....	2	2	....
Creatinine	....	2	2	....
Typhoid-paratyphoid examinations:				
Blood cultures—				
Positive	2	163	165	
Negative	17	1,028	1,045	
Urine cultures—				
Positive	2	7	9	
Negative	13	1,206	1,219	
Feces cultures—				
Positive	3	13	16	
Negative	36	1,326	1,362	
Agglutination—				
Positive	14	358	372	
Negative	34	1,104	1,138	....

Comments somewhat in detail concerning certain features of th work of this laboratory during the year 1916 are considered desirabl and follow.

Typhoid-paratyphoid.—During the early part of the summer c 1916 it became evident to this laboratory that both typhoid an paratyphoid might be expected to develop in troops entering Mexic as one case of typhoid and two or three cases of paratyphoid occurred in men on duty with the punitive expedition soon after i entry into Mexico. These men were invalided back to the bas hospital at El Paso, Tex., with undetermined fevers, the diagnos being established in this laboratory by cultural methods. In Apri 1916, *B. paratyphosus* A was isolated by blood culture from Serg M. K., of the Twenty-eighth United States Infantry, stationed a Mission, Tex., and very soon thereafter (May 23, 1916) the sam organism was isolated by blood culture from a civilian at Missio In June a second case of paratyphoid A occurred in the Twenty-eigh United States Infantry. These three cases were diagnosed clinicall by Majs. W. N. Bispham and C. L. Foster, Medical Corps, Unite States Army, as belonging to the typhoid-paratyphoid group.

In July, 1916, a brigade of the New York National Guard too station at Mission, Tex., and within a few weeks thereafter we bega to recover *B. paratyphosus* A by blood culture from patients wit undetermined fever transferred from Mission to the base hospita Fort Sam Houston, Tex. This marked the beginning of a shar but mild epidemic of paratyphoid A in the brigade of New Yor

oops at Mission. Paratyphoid A also appeared in other organi-
itions of the New York division and in other troops stationed in
ie Brownsville district. A summary of the laboratory work done
i suspected typhoid-paratyphoid fevers is presented below:

Number of examinations by month.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
ood cultures:													
Negative typhoid and paratyphoid.	1	....	....	3	7	6	33	131	575	194	55	40	1,045
Positive typhoid	....	....	....	....	....	....	1	7	9	4	6	....	27
Positive paratyphoid A	....	....	....	1	1	....	2	25	79	22	5	2	137
Positive paratyphoid B	....	....	....	....	....	....	1	1	....	....	....	....	2
ot cultures:													
Negative typhoid and paratyphoid.	....	....	....	1	....	2	13	....	1	....	....	....	17
Positive typhoid	....	....	....	....	....	1	....	....	....	....	....	....	1
Positive paratyphoid A	....	....	....	....	....	1	....	....	....	....	....	....	1
Positive paratyphoid B	....	....	....	....	....	....	....	....	....	....	....	....	....
ltures from urine:													
Negative typhoid and paratyphoid.	....	....	3	1	1	8	38	59	566	279	206	58	1,219
Positive typhoid	....	....	....	....	1	....	....	....	2	....	....	....	3
Positive paratyphoid A	....	....	....	....	1	....	....	....	3	....	2	....	6
Positive paratyphoid B	....	....	....	....	....	....	....	....	....	....	....	....	....
ltures from feces:													
Negative typhoid and paratyphoid.	3	2	7	1	7	16	61	92	515	287	243	128	1,362
Positive typhoid	....	....	....	....	1	....	....	....	....	....	....	....	1
Positive paratyphoid A	....	....	....	....	1	1	....	....	11	....	1	....	14
Positive paratyphoid B	....	....	....	....	....	....	....	1	....	....	....	....	1
glutinations, patient's organism ersus laboratory immune sera:													
Negative typhoid and paratyphoid[1]	....	....	....	....	....	....	....	....	....	....	....	....	......
Positive typhoid	....	....	....	....	2	1	....	9	11	4	6	....	33
Positive paratyphoid A	....	....	....	1	3	2	2	25	93	22	8	2	158
Positive paratyphoid B	....	....	....	....	....	....	1	1	....	....	....	....	2
glutinations, laboratory organism ersus patient's serum:													
Positive typhoid	....	....	....	....	2	1	2	1	3	3	4	1	17
Positive paratyphoid A	....	....	....	....	1	1	1	....	52	47	50	7	159
Positive paratyphoid B	....	....	....	....	....	....	2	....	3	....	....	....	5
Negative typhoid	1	....	2	1	5	3	12	7	146	131	111	27	446
Negative paratyphoid A	....	....	1	1	6	2	7	2	96	88	52	21	296
Negative paratyphoid B	....	....	1	1	7	3	6	1	114	133	102	28	396

[1] Not tabulated; 1,000 or more.

Typhoid.—During the year 32 cases of typhoid were identified by
is laboratory. The distribution of these cases, laboratory method
' identification, and name, station, prophylactic record, etc., are
iown in the following tables:

	Blood culture.	Aggluti-nation.	Cultures from feces and urine.	Total.
gular troops	2	....	1	3
litia	19	4	....	23
vilians	5	1	....	6

1916.—Typhoid report, department laboratory No. 1, Fort Sam Houston, Tex.

Organization.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.		Total.
	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	Culture.	Agglutination.	
Regulars	....	....	....	....	....	....	....	....	1	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	3	....	3
Militia	....	....	....	....	....	....	....	....	....	....	....	....	....	1	5	....	7	2	2	....	5	1	....	....	19	4	23
Civilians	....	....	....	....	....	....	....	....	1	....	1	....	....	1	1	....	....	....	2	....	....	....	....	....	5	1	6
Total	....	....	....	....	....	....	....	....	2	....	1	....	1	2	7	....	7	2	4	....	5	1	....	....	27	5	32
Total	....	....	....	....	....	....	....	....	2		1		3		7		9		4		6		....	....	32		32

Incidence typhoid in Regular troops, United States Army, 1916.

No.	Rank.	Company.	Organization.	Station.	Date onset.	Date diagnosis.	Method diagnosis.	Prophylactic record.
1	Second lieutenant	....	Fifth Cavalry	Mexico	Apr. 30	May 30	Feces culture	Army vaccine; 3 doses West Point, N. Y., March or April, 1912.
2	Private	B	Ninth Infantry	Fort McIntosh	July 15	July 30	Blood culture	Not administered.
3	Private reservist	....	Quartermaster Corps	Fort Sam Houston	Aug. 13	Aug. 20	....do	Army vaccine; 3 doses Mar. 6, 16-26, 1913, at Fort Thomas, Ky.
CIVILIAN.								
1	Civilian	....	....	Fort Clark	....	May 17	Blood culture	Not administered.
2	....do	....	....	Fort Huachuca	June 3	June 18	....do	Do.
3	....do	....	....	Columbus, N. Mex	....	July 28	Agglutination	Do.
4	....do	....	....	Fort Ringold	....	Aug. 1	Blood culture	Do.
5	....do	....	....	Camp Wilson	Sept. 20	Oct. 6	....do	Do.
6	....do	....	....	Fort Sam Houston	Sept. 30	Oct. 2	....do	Do.

1	Sergeant	M. D.	Second Kansas Infantry.	Eagle Pass	July 7	July 22	Agglutination	1 dose, Fort Riley, June 27, 1916; 1 dose, Eagle Pass July 6, 1916.
2	Private	M. G.	Eighth Illinois Infantry.	Camp Wilson	July 26	Aug. 8	Blood culture	1 dose, Camp Wilson July 25, 1916
3	Sergeant	C	Sixty-ninth New York Infantry.	Mission	July 28	Sept. 4	....do	3 doses February, 1915, El Paso, not Army vaccine.
4	Private	E	First Virginia Infantry	Brownsville	July 29	Aug. 24	....do	3 doses completed July, 1916.
5	....do	E	Third Indiana Infantry.	Llano Grande	Aug. 5	Sept. 16	Agglutination	Do.
6	....do	H	First Illinois Cavalry	Brownsville	...do	Aug. 28	Blood culture	3 doses completed March 16, Illinois State Board of health vaccine.
7	....do	A	Signal Corps, New York.	McAllen	Aug. 11	Aug. 19	....do	1 dose June 10, 1916, New York City.
8	Corporal	F	Seventy-fourth New York Infantry.	Pharr	Aug. 20	Aug. 27	....do	3 doses completed March, 1916.
9	Private	F	....do	....do	Aug. 28	Sept. 10	....do	Do.
10	....do	E	Fourteenth New York Infantry.	Mission	Aug. 29	Sept. 26	Agglutination	3 doses completed August, 1915.
11	Corporal	H	Twenty-second New York Engineers.	McAllen	...do	Sept. 6	Blood culture	3 doses completed September, 1914.
12	Private	H	Seventy-first, New York Infantry.	....do	Sept. 1	Sept. 10	....do	3 doses completed November, 1915.
13	Corporal	E	Third Illinois Infantry	Camp Wilson	Sept. 10	Sept. 16	....do	3 doses completed March, 1916; Illinois Board of health vaccine.
14	....do	H	Second Iowa Infantry.	Brownsville	Sept. 11	Sept. 21	....do	3 doses July, 1916, Camp Dodge, Iowa.
15	Sergeant	A	Fourth Illinois Infantry.	Camp Wilson	Sept. 13	Sept. 22	....do	3 doses completed July, 1916.
16	....do	L	Third Iowa Infantry	Brownsville	...do	Oct. 7	....do	3 doses completed May, 1916.
17	Private	E	Third Texas Infantry	Corpus Christi	Sept. 16	Oct. 6	....do	3 doses completed June, 1916.
18	....do	K	First North Dakota Infantry.	Mercedes	Oct. 10	Nov. 18	Agglutination	3 doses completed July, 1916.
19	....do	B	First Iowa Field Artillery.	Brownsville	Nov. 1	Nov. 10	Blood culture	3 doses completed June, 1916, at Camp Dodge, Iowa.
20	....do	....	Fifth Maryland Infantry.	Eagle Pass	...do	Nov. 17	....do	3 doses completed July, 1916.
21	....do	H	....do	....do	Nov. 9	Nov. 19	....do	Do.
22	....do	M. D.	Third Wisconsin Infantry.	Camp Wilson	Nov. 14	Nov. 25	....do	3 doses completed August, 1916.
23	....do	A	First Tennessee Infantry.	Eagle Pass	Nov. 15	Nov. 27	....do	Do.

As will be noted, only 3 individuals in the regular service and in the militia contracted typhoid, notwithstanding the fact that was endemic all along the border. The typhoid immunization reco of these patients was as follows:

	1912	1913	1914	1915	1916	Non
Regulars	1	1	....	....	....	
Militia	....	....	1	3	[1] 18	
Civilians	....	....	....	....	....	

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[1] One individual reported as having only one dose of prophylactic, and one as having two doses.
[2] Militiaman reported as having no prophylactic; was administered first dose on July 25, but was adm ted to hospital with typhoid on the following day, July 26.

The typhoid-prophylactic record of the three cases occurring i Regular troops has been thoroughly investigated and is correct, b it has not been possible to authenticate the records of the patien belonging to the militia.

The particularly striking thing shown by the prophylactic recor charted above, is the fact that no individual in the Regular Army wh had been protected by prophylactic vaccination within the past thre years contracted typhoid. These statistics, confirming those co lected abroad, more particularly in the British service, indicate th typhoid immunization gives a very high degree of protection again typhoid for at least three years, after which time one tends to becom slightly susceptible. This observation suggests that it might b desirable to revise General Orders No. 4, War Department, 1915.

Paratyphoid.—During 1916, 247 cases of paratyphoid A and cases of paratyphoid B were identified by this laboratory. Th distribution of these cases and laboratory method of identification shown below:

	Blood cultures.	Agglutination.	Cultures from feces or urine.	Total 1916.
Regular troops:				
Paratyphoid A	17	3	....	
Paratyphoid B	....	....	....	....
Militia:				
Paratyphoid A	180	42	4	2
Paratyphoid B	2	....	1	
Civilians:				
Paratyphoid A	1	....	....	
Paratyphoid B	....	....	....	....

A special report covering the paratyphoid situation from th laboratory point of view is in course of preparation and will be sub mitted in the near future.

Syphilis.—(*a*) Wassermann's on blood. During the year, 9,098 Wassermann reactions were done on blood specimens. The average number of routine tests per month, for the past six months, was 880. The distribution, according to character of reaction, of the total number of tests by months is shown in the following table:

Month.	Negative.		+ −		+		+ +		No test.		Total number.	Total positive.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		+ and ++
1916.												*Per cent.*
January	370	67	50	9	37	7	62	11	32	6	551	18
February	413	77	34	6	14	3	55	10	21	4	537	13
March	421	76	38	7	21	4	53	10	18	3	551	14
April	323	62	46	9	33	6	90	17	32	6	524	23
May	469	58	102	13	51	6	115	14	68	8	805	20
June	590	70	79	9	45	5	95	11	39	5	848	16
July	630	76	41	5	27	3	48	6	82	10	828	9
August	845	78	26	2	36	3	70	7	113	10	1,090	10
September	768	82	34	4	25	3	45	5	68	7	940	8
October	687	78	33	4	55	6	54	6	53	6	882	12
November	502	71	44	6	39	6	86	12	36	5	707	18
December	619	74	38	5	55	7	86	10	37	4	835	17
Total	6,637	72	565	7	438	5	859	10	599	6	9,098	15

This table is presented mainly for the purpose of showing the number and percentage of specimens received by the laboratory in such condition that it was impossible, for one reason or another, to submit a report. It will be noted that no reaction could be reported on 599 of 6 per cent of the total number of specimens received during the year. The specimens falling in this class consisted of these "broken in mail," burned, haemolyzed, and anticomplementary.

The percentage of specimens of this class is altogether too large, and could be reduced very materially by the devotion of some attention to the sealing of capsules properly to prevent burning and to packing the capsules properly for mailing. It is the experience of this laboratory that specimens of whole blood in capsules, even though apparently in perfect condition, not infrequently are anticomplementary when tested. This applies more particularly to specimens in transit in the mails for a considerable length of time. The substitution of separated serum for whole blood in such instances enables us almost invariably to report satisfactory reactions. At our request the base and camp hospitals in our district are now forwarding separated serum exclusively, and the influence of this procedure on the number of specimens received in an unsatisfactory condition is very clearly evidenced by the marked reduction in the percentage of unsatisfactory specimens received—September, 10 per cent; December, 4 per cent. This method of forwarding specimens for Wassermann and other serological examinations should, in our opinion, be adopted when feasible, as a routine measure throughout the service.

We have tabulated separately the results of the Wassermann test for the National Guard and for the United States Army. Our records show 1,865 routine initial tests on soldiers in the National Guard and 2,274 on soldiers in the regular service during the period July 1 to

December 31, 1916, and we have tabulated the following summary the number of syphilitics in each group:

	Regular troops.		National Guard.	
	Number.	Per cent.	Number.	Per cen
Initial examinations:				
Positive	370	16	348	
Negative	1,904	84	1,517	
Reexaminations:				
Positive	109	22	20	
Negative	394	78	69	

The above figures indicate on their face that syphilis is mor prevalent in the National Guard on duty in this department (19 pe cent of those examined) than in regular troops (16 per cent of thos examined).

We have made Wassermann examinations on one group of mer applicants for enlistment, the results of which may be considere as indicating the prevalence of syphilis in presumably normal ind viduals accepted as recruits.

Of 251 applicants for enlistment, 5 or 2 per cent gave a positiv reaction. In 1915 in a total of 123 such cases examined 13 or 10. per cent were positive. No conclusions of any value can be draw from such statistics until many thousands of such examination have been analyzed.

On account of the frequently changing personnel in the departmen and the lack of familiarity with Medical Department forms on th part of the commissioned officers of the Medical Corps of the Nationa Guard and the Medical Reserve Corps, this laboratory has receive a very large number of Wassermann requests, and a still larger num ber of Wassermann cards (Form 97), improperly or incompletel filled in or not made up at all (596 cards incompletely filled in wer received between October 1 and December 31, 1916). For thi reason we have been unable to compile from the Wassermann card any statistics in which we personally have any confidence. Suc information as we have been able to compile is presented below:

Known cases of syphilis.	Number of cases.		Number positive.		Number negative.		Percentage positiv	
	Regulars.	Militia.	Regulars.	Militia.	Regulars.	Militia.	Regulars.	Militia.
Primary	137	96	56	50	81	46	41	52
Secondary	538	154	432	123	106	31	80	80
Tertiary	132	51	94	37	38	14	71	72.
Latent	73	37	65	37	8	....	89	100
Hereditary	6	1	5	....	1	1	83	....

(*b*) *Spinal fluids.*—As a matter of routine, the following examina tions are carried out on spinal fluids: Cell count, Wassermann (dilutions), globulin increase, and colloidal gold reaction. This grou of reactions has been done on about 100 spinal fluids during the yea and the results reported have been of very definite value to th clinicians.

(*d*) *Dark-field examinations.*—During the year 596 lesions, sus-ected of being syphilitic, were examined by the dark-field method, nd *Treponema pallidum* was found in 16 per cent. It is our pinion that this very valuable laboratory aid to the diagnosis of yphilis in its very early stages should be made a matter of routine t all military stations where facilities (electricity or gas) exist for arrying it out.

Diphtheria.—It will be noted from the table summarizing the work f this laboratory that a very considerable number of throat cultures ere examined for *Bacillus diphtheria*, with a large percentage of ositives—99 positive, 315 negative. Practically all this material ame from the camp of National Guard troops at Llano Grande, ex. Cases of diphtheria of a mild type began to appear there in ctober and persisted until the latter part of November. During ctober we reported on 169 throat cultures, 57 of which were ositive for *Bacillus diphtheria*. In November, 113 throat cultures ere examined, with 25 positive. The sanitary inspector at Llano rande informed us that many of the positive cases were contacts nd carriers without clinical symptoms.

When cases of diphtheria began to appear in this camp this labo-atory forwarded the camp sanitary inspector a supply of diphtheria oxin, for use in performing the Schick test on contacts, and it is our nderstanding that this test gave quite satisfactory results. This boratory is indebted to the laboratory of the New York City oard of health for a supply of diphtheria toxin for these tests. The chick test is a reliable one, quickly and easily performed on large umbers of people at an insignificant cost, and its use during epi-emics will eliminate nonsusceptibles, thus curtailing very materially he expense incident to the purchase of diphtheria antitoxin for im-unization purposes. It is recommended that arrangements be per-ected for keeping a potent supply of this toxin on hand at each epartment laboratory for emergency supply to posts or camps when pidemics of diphtheria threaten.

Malaria.—During the year 197 microscopical examinations for alarial parasites were positive. The distribution of the cases and umber of examinations by months was as follows:

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
ositive	1	......	......	......	13	9	14	26	66	51	14	3	197
egative	20	1	7	11	31	17	100	313	424	360	117	87	1,475

Practically all the cases occurred in troops making up the twelfth ivision at Camp Wilson, Fort Sam Houston, Tex. A study of the istribution of the cases by organizations and the movements of he units making up the division demonstrated very clearly that the isease was being contracted on maneuvers in the vicinity of New raunfels, Tex.

It is also probable that malaria may be contracted at the Leon prings Military Reservation, but it is our experience that it but eldom or practically never originates at Fort Sam Houston.

Dysenteries.—Dysentery of the protozoal type was but rarely ob-erved in this laboratory. A few cases of bacillary dysentery have been identified by isolation of the specific organism or by agglut nation reactions.

During the past summer an organism in almost pure culture w isolated by Lieut. Schule from the stools of three or four cases clinical dysentery. The organisms apparently belonged to the dyse tery group, but did not conform to the cultural characters or agglut nation reactions of any one of the organisms of the dysentery grou heretofore described. Stock cultures of these organisms are bei saved, in the hope that a decrease in necessary routine work m permit their investigation at some time in the near future.

Vaccines.—A very considerable amount of attention has been giv during the year to the preparation and administration of vaccin and to the observation of their effect on cases of furunculosis, certa selected cases of skin diseases, and some chronic lesions, the etiolog of which could be traced to the presence of some of the more comm microorganisms. Occasional striking results have followed the u of the vaccines in a limited number of the cases, and good resul have followed in many.

Water analyses.—During 1916, 23 complete chemical analyses water were done, as compared with four in 1915. Analyses of th kind require a very considerable amount of special apparatus, co stant attention to the standard solutions, trained technicians, a careful supervision. The results obtained from chemical analys frequently are indefinite, their interpretation difficult or impossibl and altogether they appear to be of but little practical value as co pared with bacteriological analyses. The technique for bacteri logical analyses of water is simple and easily carried out, and t results obtained usually are quite definite and clear cut.

In view of the facts cited above, it is recommended that the routi chemical analyses of water supplies be discontinued and that chen ical examinations be confined to ones desired for special purposes.

Seventy-five bacteriological examinations of water were made 1916, as compared with 15 for the previous year. The objection this method of analysis is that the samples usually are in transit the laboratory for at least 24 hours, during which time they are n packed in ice. It is our custom to omit the colony counts on su samples and to do only the presumptive test for organisms of t colon group, subsequently identifying any gas producers presen It has been our experience that organisms of the colon group are n ordinarily overgrown in 24 to 48 hours, and we have even identifi organisms of this group in samples of water from Mexico that we in transit for a period of six days.

A number of the samples examined in this laboratory have show a high percentage of gas by the presumptive test, and members the colon group practically always have been identified. Many su samples were drawn from irrigation canals, rivers, and other colle tions of water exposed to the droppings of range cattle. If the sour of contamination is from the excreta of range cattle rather than fro the excreta of human beings, the presence of organisms of the col group is believed to be of no particular sanitary significance.

Milk analyses.—The routine procedure for the chemical and ba terial examination of milk samples, instituted in this laboratory the fall of 1915, has been continued throughout 1916. During 19 three posts were designated by the department commander fro which milk samples were to be forwarded once each month. During 1917 it is the intention to extend this service to all the more important permanent and semipermanent posts in the department.

Chemical examination of malt beverages.—During 1916 this laboratory made chemical examinations of 17 specimens of malt beverages to determine the alcohol content. As these beverages are handled by post exchanges and presumably have an alcohol content of approximately 2 per cent by volume, it may not be amiss to invite attention to the results of some of the examinations made by this aboratory. We have found that the alcohol content of some of these beverages varies from time to time and frequently is higher than is permissible by law. As an example of the widest degree of variation in samples of the same product, the following results are cited:

Date of examination.	Per cent of absolute alcohol.		Date of examination.	Per cent of absolute alcohol.	
	By weight.	By volume.		By weight.	By volume.
Nov. 2, 1915	1.61	2.03	Feb. 27, 1916	2.062	2.60
Nov. 4, 1915	1.61	2.03	Sept. 6, 1916	1.99	2.51
Do	5.77	7.32	Sept. 10, 1916	1.94	2.44
Nov. 11, 1915	1.94	2.44	Sept. 30, 1916	5.96	7.51
Do	1.87	2.35	Oct. 2, 1916	2.34	2.95

The samples in this series were identical as to manufacturer's bottle, bottle cap, and label, and were selected from the stock sold by post exchanges.

Laboratory animals.—Climatic conditions in Texas are conducive to the rearing of guinea pigs, and this laboratory, for the past two years, has had no difficulty in raising a supply, more than adequate to meet its demands. During 1916 more than 300 pigs were required or complement alone, and between August and December, 1916, 238 pigs were shipped to the department laboratories at El Paso, Tex., and Nogales, Ariz.

Early in December, 1916, an epidemic disease appeared among the guinea pigs that killed between 150 and 200 of the best and oldest stock. The organism responsible for the epidemic was definitely proven to belong to the paratyphoid group, and biologically was more nearly akin to paratyphoid B than to paratyphoid A. The epidemic was finally controlled by segregation of the animals nto small groups, isolation of those ill, and thorough disinfection of nfected pens. As the infection was practically confined to one room—that containing the breeding females—all animals in this room were immunized with a prophylactic vaccine. During the height of the epidemic, a number of mice and some cockroaches, that had been in the habit of preying on the food of these animals were found dead or ill, and an organism apparently identical with that isolated from the guinea pigs was recovered from both sources.

New routine tests.—During the year, two new diagnostic methods have been introduced as routine tests, namely, the gonococcus fixation test and chemical blood analyses. The gonococcus complement fixation test was begun in September, and during the last four months of the year 166 such tests were done.

The recently developed methods of chemical analyses of the bloo of demonstrated practical value, such as blood sugar estimation creatinine determinations, etc., recently have been added to o list of routine tests offered.

Supplies issued on request.—There was a very marked increase i the number of requisitions for biological products and laborator supplies during 1916. In this department it is customary for th department laboratory to supply, on direct requisition, most of t biological products ordinarily used—typhoid, paratyphoid, gonoco cus, stock staphylococcus, streptococcus, acne, and smallpox va cines—and an extraordinarily large amount of these products nece sarily were used during the year.

A summary showing the amount of biological products, laborator supplies, etc., issued by this laboratory to medical units in the depar ment is submitted below:

Articles issued posts and commands on requisition.	Units.	1916, first six months.	1916, second six months.	Total, 1916.	Total 1915.
Typhoid vaccine	c. c	69,483	209,180	278,663	5,
Paratyphoid vaccine	do	....	61,669	61,669	....
Gonococcus vaccine	do	294	2,102	2,396	
Smallpox vaccine	Units	15,138	65,843	80,981	10,
Antitetanus serum	Packages	35	35	70	....
Mailing cases	Number	1,573	5,265	6,838	1,
Schick tests	do	....	210	210	....
Containers for water, chemical	do	26	108	134	....
Containers for water, bacteriological	do	5	27	32	....
Containers for milk, bacteriological examination	do	50	78	128	....
Containers for feces	do	4	494	498	....
Containers for urine	do	6	20	26	....
Containers for sputum	do	4	40	44	....
Articles prepared in laboratory and issued on requisition.					
Staphylococcus vaccine	c. c	288	650	938	
Bile medium	Bottles	196	2,917	3,113	
Bile medium, in bulk	Liters	....	14	14	....
Loeffler's blood serum	Tubes	54	604	658	
Diphtheria culture tubes	Number	....	637	637	....
Russell's double sugar media	Tubes	....	2,060	2,060	....
Miscellaneous culture media	do	58	48	106	
Wright's capsules	Number	3,378	5,160	8,538	6,
Serum capsules	do	....	149	149	....
Spinal fluid tubes	do	....	39	39	....
Miscellaneous stains	C. c	860	1,950	2,810	
Miscellaneous articles	Number	978	4,515	5,493	....

The issue of biological products by this laboratory, on requests b telegraph or by mail, to all medical department units in the depar ment has simplified and expedited the receipt of such supplies whe urgently needed. It is suggested that each department laborato could, to great advantage, be designated as a depot for the issue many of the standard biological products.

Special work.—The activities of this laboratory are of necessit concerned primarily with the class of practical laboratory work th tends to aid the clinician. With the limited commissioned an enlisted personnel and the cramped space available it has bee impossible and impracticable to attempt much more than routin New laboratory methods of proven value—spinal fluid examination chemical blood analyses, bacterial complement fixation tests—a being introduced as routine from time to time, and when sufficie naterial has been collected, their value to the military service will e made the subject of special reports. If special lines of investigaion are to be undertaken, and it is our opinion that work of this haracter should form a very appreciable part of the work of the lepartment laboratory, it will be necessary to increase the permanent ersonnel, both commissioned and enlisted. This particular laboraory should have at least three commissioned medical officers under ormal conditions. Under the abnormal conditions existing at the resent time, four medical officers are required to do the routine vork with scarcely any time for special work.

During the year 1916, a number of special lines of investigation vere taken up but none of them could be carried to completion, as the mount of routine work being done prevented any consecutive work long special lines. Among the investigations undertaken, the ollowing may be mentioned:

Tentage preservation.—The infection with molds of tentage in the Brownsville district has resulted in the loss of a very considerable mount of tentage, and Maj. Cole, of this laboratory, for several nonths has been investigating in an experimental way the prevenion of such infections by impregnation of the tentage with chemicals f various kinds. It is believed that these investigations will prove o be of value to the military service and that a practical and economial method of tentage preservation will be worked out.

Paratyphoid.—The occurrence of a considerable number of cases f paratyphoid fever in the department has enabled this laboratory o gain a considerable amount of information of practical value relative o the organisms of the typhoid-paratyphoid group. A series of apers covering the work are in course of preparation and will be ubmitted when completed.

Milk analyses.—A series of chemical and bacteriological tests for nilk supplies that appeared to be applicable to service conditions vere tried out practically during 1916. Particular attention is now eing paid to a comparison of the Stewart-Slack and the Prescott-Breed methods of direct bacterial count. The direct counts are also eing checked against the colony counts in the milk samples from Fort Sam Houston. The results of these investigations will be made he subject of a special report when sufficient material has been ollected.

REPORT OF DEPARTMENT LABORATORY NO. 2, SOUTHERN DEPARTMENT, MILLS BUILDING, EL PASO, TEX., FROM DATE OF OPENING, JULY 23, 1916, TO DECEMBER 31, 1916.

In accordance with letter of instructions from department surgeon, headquarters Southern Department, Fort Sam Houston, Tex., dated December 18, 1916, I herewith submit a report of the work done in Department Laboratory No. 2, Mills Building, El Paso, Tex., from the date of the opening of the laboratory, July 23, 1916, to December 31, 1916.

When the militia was ordered to the border this laboratory was established at the request of the department surgeon to care for the laboratory work requested from the district included in the area west of the Big Bend district to the Pacific, including the punitive expedition in Mexico. Later Department Laboratory No. 3 was established at Nogales, Ariz., taking over that portion of the work include in the territory from Nogales to the Pacific.

At first it was intended that Department Laboratory No. 2 shoul be established at Fort Bliss, Tex., in conjunction with Base Hospit No. 2 at that place, but there being no suitable building availabl and as it would have taken some weeks, or even longer, to erect suitable structure, rooms were hired for the laboratory on the twelft floor of the Mills Building, which are almost ideal for the purpos By securing permission to have the complete equipment of th department laboratory of the Central Department at Fort Leavenworth (of which I had charge at the time the order for the establishment of this laboratory, was issued) sent to El Paso by express, th equipment arrived at that city on July 12, 1916, the order directin the establishment of the laboratory being issued on June 30, an on July 23, the equipment having been installed, the laboratory wa opened for work, although it was several weeks later before the shelving necessary for the equipment was completed.

On my recommendation, approved by the commanding officer o Base Hospital No. 2, and the department surgeon, authority wa granted by the War Department on October 21, 1916, making th laboratory a separate command under the headquarters of th Southern Department. This change was recommended because i would greatly simplify and expedite administrative measures, and i has resulted in greater efficiency and has relieved the base hospita of considerable administrative work connected with the laboratory It is believed that department laboratories should, wherever possible be separate commands, directly under department headquarters This will always work for efficiency and prevent the detailing of th officers and men assigned to them away from the laboratory, by loca commanders, which, in the past, has greatly injured the work o some of these laboratories, as I know from personal experience.

Owing to the large amount of work that was sent to the laborator as soon as it was ready for operations, I requested that Maj. Henr J. Nichols, Medical Corps, United States Army, in charge of th laboratory at the Letterman General Hospital, San Francisco, Cal. and Capt. Felix R. Hill, Medical Corps, United States Army, on dut at El Paso, be assigned to the laboratory, and Maj. Nichols reporte upon August 7, 1916, and Capt. Hill upon September 17, 1916. Th enlisted personnel consists of two sergeants, two corporals, and tw privates first class of the Medical Department.

From July 23, 1916, to December 31, 1916, 8,545 examination have been made in the laboratory, distributed as follows:

ABLE 1.—*Examinations made in Department Laboratory No. 2 from July 23, 1916, to Dec. 31, 1916.*

Character of examination.	Number.	Results.
mplement fixation tests:		
1. Wassermann tests	4,231	
2. Tuberculosis tests	110	
3. Gonococcus tests	62	
4. Glanders tests	12	
Total	4,415	
ces for endamæba histolytica	1,526	Positive, 164.
ood cultures for typhoid group	477	Positive.—Typhoid, 14; paratyphoid A, 99; paratyphoid B, 1.
ces cultures for typhoid group	658	Positive.—Typhoid, 0; paratyphoid A, 5; paratyphoid B, 1.
le cultures (duodenal contents) for "carriers"	26	Positive.—Typhoid, 1; paratyphoid A, 1.
ine cultures for typhoid group	85	
glutinations for typhoid group	246	
ood cultures, miscellaneous	78	
phtheria cultures	457	Positive, 37.
ater, bacteriological	80	
utum for B. tuberculosis	52	Positive, 10.
alarial plasmodia	15	Positive, 2.
amination for spirocheta pallida	47	Positive, 11.
aminations for gonococci	22	Positive, 10.
aminations for bacillus of Ducrey	12	Positive, 10.
amination of meningitis contacts	29	
inal fluid for meningococcus	9	Positive, 7.
ltures for pneumococcus	5	Positive, type 1, 2.
ine, chemical and microscopical	65	
aminations for negri bodies	3	Positive, 1.
aminations for bacillus mallei	5	Positive, 5.
lk, chemical and bacteriological	5	
omach contents, chemical	20	
omach contents for strychnine	1	Positive, 1.
hisky for strychnine	1	Do.
imal inoculations	86	
scellaneous examinations	120	
Total	8,545	

In addition to the examinations made in the laboratory the follow-
g supplies have been furnished the various commands in the district
pplied by the laboratory:

ABLE 2.—*Supplies furnished by department laboratory No. 2 from July 23, 1916, to Dec. 31, 1916.*

Articles supplied.	Amount supplied.	Articles supplied.	Amount supplied.
right's capsules and tubes for Wassermann test	5,500	Antimeningitis serum (Flexner's), cubic centimeters	400
rine containers	135	Colon vaccine...... cubic centimeters	36
ces containers	758	Gonococcus vaccine ..... do	846
ater containers (bacteriological)	105	Paratyphoid vaccine ..... do	1,728
utum bottles	142	Staphloacne vaccine ..... do	576
le medium, bottles of	600	Staphylococcus vaccine ..... do	60
lood serum, Loeffler's, tubes of	657	Streptococcus vaccine ..... do	84
ntidysentery serum (Flexner's), cubic centimeters	3.000	Typhoid vaccine ..... do	2,260

Complement fixation tests.—In all, 4,415 complement fixation tests
ave been made for the diagnosis of syphilis, tuberculosis, subacute
nd chronic gonorrheal infections, and glanders, divided as follows:
Vassermann tests, 4,231; tuberculosis, 110; gonorrhea, 62; and
landers, 12.

The Wassermann test.—During the time covered by this report there
ave been 4,231 Wassermann tests made in the laboratory, of which

929 were reexaminations made largely for the determination of tl results of the treatment, and 3,302 were original examinations. the latter, 877 were upon cases diagnosed as probable syphilis or su picious of that disease, while 2,245 were made upon patients sufferir from other diseases but in whom it was desired to eliminate syphili

Of the 877 tests made upon patients in whom syphilis was diagnose or strongly suspected, 694 gave a positive reaction, or practically per cent. These cases were divided, as regards the stage of the di ease, as follows:

TABLE 3.—*Results of Wassermann tests made in department laboratory No. 2 from Ju 23, 1916, to Dec. 31, 1916.*

Stage of disease.	Number of cases.	Positive.	Per cent.	Negative.	Per cer
Primary	213	174	81.6	39	1
Secondary	341	323	94.6	18	
Tertiary	85	67	78.8	18	2
Latent	238	130	54.6	108	4

Continued experience with the Wassermann test, employing tl technique which I have followed since 1913, has resulted in firm convincing me of its great value in the diagnosis and as a control the treatment of syphilis. The technique used is that now employe in most of the Army laboratories and has stood the test of years, ar it is believed is as nearly perfect as it is possible for the technique any test to become. Some changes have been advocated, but it not thought that the method should be changed in its essential fe tures. Especially is the adoption of a sheep hemolytic system instea of the human hemolytic system now in use deprecated, for while may be less difficult to work with in some respects, the gain in th direction is more than compensated for in the greater accuracy of tl human hemolytic system, which is certainly the ideal one for con plement fixation tests upon human blood serum. The fact th human serum sometimes contains a considerable amount of natur amboceptor against sheep cells is alone sufficient to decide in favor the use of the human system, and recent work has shown that th factor is one that can not be overlooked or slighted. The most recen observations are all in favor of the use of a human hemolytic syste in complement fixation work upon human blood, and mere ease preparation of amboceptor or other retechnical procedures should n weigh against the use of this system. It has been used by the writ since 1913 with the greatest satisfaction, and it is believed that should invariably be employed in the Wassermann test if the greate degree of accuracy is desired in the application of this test.

Complement fixation in tuberculosis.—One hundered and ten con plement fixation tests for tuberculosis have been made, of which were in cases diagnosed as suspicious of the disease and 45 were cases suffering from other diseases in which it was desired to elimina tuberculosis. Of the 65 suspected of tuberculosis, or so diagnose 59 gave a positive reaction, or a little over 90 per cent. In only s of the cases giving a positive reaction could tubercle bacilli be demo strated in the sputum at the time the test was made, although mar of the cases have since shown the organism in the sputum. Of tl six cases diagnosed as suspected tuberculosis that reacted negatively, only two showed the bacilli in the sputum, the remainder still being undetermined as tuberculous cases. The two cases showing tubercle bacilli in the sputum that reacted negatively were rapidly advancing cases, and it has been my experience with this test that in such cases the reaction is frequently negative, owing apparently to the lack of formation of the substance or substances giving the reaction because of the overwhelming infection.

The antigen used in these tests has been a polyvalent alcoholic extract of several strains of the tubercle bacillus prepared as described in my article published in the American Journal of Medical Sciences for December, 1915. A human hæmolytic system has been used, and the general technique of the test is the same as employed in the Wassermann test. The results obtained since the publication of my original article have been collected and will be published in an early number of the Journal of the American Medical Association.

The complement fixation test for the diagnosis of tuberculosis has proven, in my experience, a most valuable measure for the detection of early cases of the disease and as an index of recovery from the infection. Since the publication of the paper referred to, a great deal of work has been done upon the subject by different investigators and all of it has been confirmatory of the value of this test in the diagnosis of the disease. I believe that it will soon be as widely used as is the Wassermann test in the diagnosis of syphilis and that it has already been placed upon a practical basis and should receive much more attention than it has so far received by those who are especially interested in the tuberculosis problem.

Complement fixation in gonorrheal infection.—This test has been made upon 62 patients in whom some form of subacute or chronic gonorrheal infection was suspected. Positive results have been obtained in only three instances and my experience with the test has been distinctly unfavorable so far as its being of any very great value in diagnosis is concerned. The antigen used has been a polyvalent one carefully prepared and titrated, and the failure of the test to give positive reactions in many cases undoubtedly gonorrheal in origin can not be explained by a poor antigen.

Complement fixation in glanders.—The complement fixation test for glanders has been made upon 12 suspected horses with a positive result in 8 cases. The horses giving a negative result presented only very slight lesions of the disease or the lesions were those of another condition. This test appears to be a very satisfactory diagnostic procedure when there are lesions of the disease present but it is useless if subcutaneous injections of mallein have been given within two months previously, as such animals will give a positive reaction with the test.

Examinations for endamœbic dysentery.—During the time covered by this report, 1,526 examinations of feces have been made for *Endamœba histolytica*, and 164 cases were found positive. These examinations were necessitated because of an outbreak of this disease in the camps in and around El Paso between August, 1916, and November, 1916. A special report has been prepared and forwarded dealing with the epidemiology of this epidemic, but the following points may prove of interest to the military surgeon who h to handle similar outbreaks of the disease.

A careful study of the epidemiology of endamœbic dysentery, it occurred at El Paso, resulted in the conclusion that most of t cases originated from "carriers" and the disease was transmitt by flies. Several true "carriers" or, as they are often termed, "co tact carriers" of cysts of *Endamœba histolytica* were discovered du ing routine examinations of feces and most of the patients havi the disease became "convalescent carriers" of the infection. Thus, the 115 soldiers having endamœbic dysentery, and observed for as lo a period as two months, no less than 86, or practically 75 per cen became "convalescent carriers" of the infection. In practically all these cases one course of 12 grains of emetine hydrochloride, in dai doses of one grain, was given, and in many of them this course w repeated. That the disease was transmitted by flies in the majori of instances is proven by the following facts:

1. The number of cases of dysentery increased with the increa in the number of flies in the camps and the new infections ceased wi the disappearance of the flies.

2. The greatest number of cases occurred in camps where the fl were most numerous.

3. Conditions regarding temperature, water and food supply, wi and dust, and disposal of excreta were the same before, during, a after the epidemic. The only factor that differed was the number flies present in the camps.

4. Contaminated water, eating of raw food in Mexican reso contamination of food or drink by infected dust, and direct infecti by contact have all been excluded as methods of transmission in t particular epidemic.

Treatment with emetine hydrochloride has not been success either in preventing the development of cysts of *Endamœba histo tica*, and therefore the development of "carriers," or in causing t cysts to disappear permanently after they have appeared. While t drug has a very beneficial effect upon the symptoms of endamœ dysentery it is not curative, if by cure is meant the permanent remo of the infection by the destruction of all of the endamœbæ.

As a result of the investigation of the epidemiology of the epide of endamœbic dysentery observed here the following recommen tions regarding the prophylaxis of the disease were submitted in t special report referred to previously:

1. When a case of endamœbic dysentery is discovered in organization a microscopic examination of the stools of all soldi in the organization who have to do with the preparation or servi of food or drink should be made for the cysts of *Endamœba histolyti* and, if possible, the examination should include all members of t organization.

2. If "carriers" of the infection are discovered they should admitted to hospital at once and treated, the treatment being c trolled by weekly examinations of the stools, extending over a peri of at least two months after the completion of treatment. It is usel to base a diagnosis of a cure of the infection upon the absence of t endamœbæ from the stools a week or two after cessation of tre ment, for in most instances, the endamœbæ disappear shortly af treatment is begun, but only to reappear later.

3. If "carriers" prove resistant to treatment they should be ischarged from the service. Experience has shown that unless his is done it will be necessary to carry them in hospital indefinitely, f danger of their spreading the infection is to be avoided.

4. The stools of all individuals showing any form of *Endamœba istolytica* should be disinfected immediately after passage, whenever racticable. This rule should never be broken where it is necessary o dispose of the excreta in latrines, or by any method where it is ossible for flies to gain access to the stools.

5. The screening of cook houses, mess halls or tents, and of food rom flies is a measure of paramount importance, as these insects re undoubtedly the greatest factor in the spread of endamœbic dysentery under conditions present in temporary or semipermanent amps.

6. The prevention of the breeding of flies, and their destruction, f breeding can not be prevented, is a prophylactic measure of great mportance. To this end picket lines should be as far removed as ossible from quarters and mess tents, and no manure should be llowed to collect; all collections of organic matter suitable for the reeding of flies should be sought for and destroyed; latrines should e built as nearly fly proof as possible, and if not fly proof, should be reated with a mixture of kerosene and lampblack; fly traps should e extensively used and frequently emptied; and camps should e located as far away as possible from native habitations in regions where endamœbic dysentery is endemic.

7. The water supply should be carefully guarded from infection nd if there is any question of its purity, it should be boiled or the yster bag be used.

8. In regions where the disease is endemic the use of uncooked ruits, vegetables, and salads should be prohibited.

9. Physicians and nurses who have the care and handling of cases f this disease should take the same precautions as regards personal rophylaxis as they would in handling cases of typhoid, paratyphoid, r similar infections.

10. Patients suffering with the disease or who become "carriers" f it should be informed of the danger of their transmitting it to the ealthy, and instructed regarding the measures that they may take o prevent such transmission.

Diagnosis of typhoid and paratyphoid fever.—During the period overed by this report 477 blood cultures have been studied for the yphoid group of organisms, and 658 cultures have been made from æces for diagnostic purposes. In addition, 246 agglutinations have een made for the typhoid and paratyphoid bacilli and 85 cultures rom the urine.

Of the blood cultures, 14 were positive for the typhoid bacillus, while 99 were positive for paratyphoid A and one for the paratyphoid B organism. There is appended a complete list of the cases proving ositive, with the data of importance concerning them.

Of the 14 cases giving a positive blood culture for the typhoid acillus, no data regarding immunization with typhoid vaccine was btained in three cases; in nine immunization had been completed with the Army vaccine, in one case in 1911; in one case in 1912; n two cases in 1914; and in five cases in 1916. Two positive cases had been immunized with Massachusetts State vaccine and one with Idaho State board of health vaccine. In two cases we we unable to determine what vaccine was used.

Maj. Nichols, who has had charge of the diagnostic work of t laboratory as regards typhoid and paratyphoid fevers, states follows regarding the use of blood cultures in the diagnosis of the infections:

"*Blood cultures in typhoid group.*—The present blood-cultu technique is very satisfactory, the only drawback being that medic officers in some cases do not take specimens early enough in t disease. If in every suspected infection in this group, 2–3 c. c. blood were taken in the first few days and put into bile media in a Wright's tube or vial and sent to a properly equipped laborato very few cases would be missed.

"The present technique used in this laboratory consists of addi 2–3 c. c. of blood, preferably from a vein, to 5 c. c. of sterile bi after 24 hours incubation, Russell's double sugar and Endo plat are inoculated; after 24 hours incubation, if the case is positive a the growth fairly pure, agglutination is made directly from En plates. Hence if the specimen comes from some distance so that it incubated in the bile en route a diagnosis can be given in 24 hou in favorable cases. If the specimen is badly contaminated, 48 hou is necessary. In a few cases with atypical or doubtful reactio a longer time of course is required.

"*Feces cultures for typhoid group.*—This work has been rat unsatisfactory, less than 1 per cent of specimens examined bei positive. This result is partly due to late examination, owing the shipment of specimens from a distance, but it is also partly d to the method itself, as known positive cases, examined early, ev with brilliant green enrichment, have failed to show the organism

"Some observations on the examination of duodenal cultures ha been made and this method is believed to be much superior for t detection of cases and carriers."

A special report upon this subject has been prepared for pub cation.

Water examinations.—At the time the laboratory was opened the was no data regarding the bacteriological character of many of t wells supplying troops camped along the border, and accordingly have endeavored to make a water survey of all sources of supp within the El Paso district. The water has been collected personal in most instances, and at the present time we have a record of t bacteriological character of the water in nearly all localities wh troops are camped in the district.

It is interesting to note that in almost every instance the wa was found to be badly contaminated, most of the water being tained from surface wells, and that in many instances no obvi source of contamination could be determined. Our examinati prove that nearly all surface well water in this region is danger and should be sterilized before use.

General examinations.—The table illustrates the character of t general examinations made in the laboratory and demonstrates th they cover a wide field. Fortunately, there is a well-equipp clinical laboratory at Base Hospital No. 2, and this has relieved t laboratory of an immense amount of routine work. If this w had been added to the work requested from the laboratory, it wo

ve been necessary to have had another medical officer assigned
the laboratory and at least two more privates of the Medical
epartment.

Research work.—Owing to pressure of routine examinations it has
en impossible to conduct very much research work and that
tempted has been along lines that could be worked out in con-
nction with routine examinations, to a large extent. A study was
ade of the epidemiology of the outbreak of endamoebic dysentery
at occurred here in the summer and early autumn, and the effect
treatment with emetine upon *Endamoeba histolytica;* an investiga-
on of the value of cultures of material obtained by the duodenal
be in the detection of "carriers" of typhoid and paratyphoid fever
still under way; additional work has been done upon complement
xation in the diagnosis of tuberculosis; the isolation and determi-
tion of the types of pneumococci concerned in the present epidemic
pneumonia is being undertaken; considerable experimental work
s been done upon paratyphoid vaccine; and a little work has been
ne upon the etiology of typhus fever. However, our experience has
own that if research work is to be one of the functions of a depart-
ent laboratory, it will be absolutely necessary to assign enough
rsonnel so that the routine examinations can be made by officers
tailed for that purpose, leaving certain other officers free to devote
eir entire time to research. It is impossible for work of this char-
ter to be done well, and with any expectation of success, if the
ficers engaged in it are continually interrupted by the necessity
making routine examinations.

Publications and reports.—During the time that the laboratory has
en in operation a special report upon the occurrence of endamoebic
sentery in the troops stationed at El Paso has been prepared and
rwarded, as well as one upon the detection of "carriers" of typhoid
d paratyphoid fever by cultures of bile obtained with the duodenal
be, the former by the officer in charge, and the latter by Maj.
enry J. Nichols, Medical Corps, United States Army. In addition
e following papers have been prepared for publication:

1. Alkaline treatment of early gall-bladder carriers with observa-
ons on their detection by aid of the duodenal tube. By Maj. H. J.
ichols, Medical Corps, United States Army. To be published in
urnal of the American Medical Association.

2. The classification of the parasitic ameba of man. By Maj.
harles F. Craig, Medical Corps, Unitrd States Army. Published in
e Journal of Medical Research, January, 1917.

3. The practical application of the Wassermann test in the diag-
sis and as a control of the treatment of syphilis. By Maj. Charles
Craig, Medical Corps, United States Army. Published in the
merican Journal of Syphilis, January, 1917.

4. The complement fixation test in the diagnosis of tuberculosis.
y Maj. Charles F. Craig, Medical Corps, United States Army. To be
ublished in the Journal of the American Medical Association.

Equipment.—The laboratory is well equipped for the work it is
lled upon to do and for research work. Every request for equip-
ent has been promptly granted and most of the equipment has
en received and installed. The rooms occupied by the laboratory
swer the purpose very well, but if it is intended that this labora-
ry become a permanent institution for this district, a suitable

building should be erected near Base Hospital No. 2, on the For Bliss Reservation, both as a matter of economy and of efficiency, a a very large part of the material sent the laboratory for examinatio would come from the base hospital. It would also be much bette from a research standpoint, as clinical material would be near a hand and could be utilized to much better advantage. Howeve if such a change should be made, it is believed that the present statu of the laboratory should remain as it is, i. e., a separate comman directly under department headquarters.

It is recommended that measures be taken to give laborator assistants who have qualified in their duties to the satisfaction of th officer in charge of the individual laboratory a rating for addition pay of $5 a month, as in the case of surgical assistants. Althoug dispensary assistants now have a rating for additional pay of $2 pe month, nurses a rating of $3 per month, and surgical assistants $5 per month, the national-defense act provided for no rating fo additional pay for laboratory assistants, a manifest injustice to very deserving class of enlisted men in the Medical Departmen A good laboratory assistant must possess a large amount of technic scientific knowledge and the duties are very arduous and the hou long, so that it is believed that these men should receive extra pa because of the character of their work. At the present time there no inducement for men to enter the Army laboratories as assistant and the consequence is that we often have to content ourselv with inferior service when much better service could be obtained the assistants received special ratings for additional pay while o duty in laboratories. It is hoped that some method may be worke out that will give the laboratory assistant the same consideratio now accorded dispensary, nurses, and surgical assistants.

In closing this report I desire to call attention to the very efficie assistance rendered by Maj. Henry J. Nichols, Medical Corps, Unite States Army and Capt. Felix R. Hill, Medical Corps, United Stat Army, during the period that they have been on duty in th laboratory.

No.	Rank.	Company.	Regiment or corps.	Station.	Date of diagnosis.	Method of diagnosis.	Prophylaxis.
1	Second lieutenant		Quartermaster Corps	Mexico	Aug. 17, 1916	Agglutination	No data.
2	Sergeant	C	Fourth Field Artillery	do	Aug. 19, 1916	do	3 doses Army vaccine September, 1911 (−).
3	First lieutenant		Second Pennsylvania Infantry.	Fort Bliss, Tex	Aug. 25, 1916	Bile culture	(1) June 24, (2) July 9, (3) July 16, 1916; Army vaccine (+).
4	Sergeant	A	Ninth Massachusetts Infantry.	Camp Cotton, Tex	Sept. 22, 1916	do	3 doses June, 1914, State vaccine.
5	Civilian	Trucker.	Quartermaster Corps	Camp Hospital, Marfa, Tex	do	do	(−).
6	Sergeant	C	Thirteenth Cavalry	Field Hospital No. 3, Dublan, Mexico.	Oct. 1, 1916	do	Army vaccine, Nov. 30, 1912.
7	First sergeant	M	Ninth Massachusetts Infantry.	Base Hospital No. 2, Fort Bliss, Tex	Oct. 6, 1916	do	3 doses 1914, Army vaccine, June.
8	Private	A	First Rhode Island Cavalry.	Fort Bliss, Tex	Oct. 7, 1916	do	3 doses 1916, May, Army vaccine (+).
9			Idaho Infantry	Camp Hospital, Nogales, Ariz	Oct. 8, 1916	do	(1) June 28, (2) July 8, (3) July 18, 1916; H. K. Mulford's State Idaho board of health.
10	Private		Medical Department	Base Hospital No. 2, Fort Bliss, Tex	Oct. 11, 1916	do	Completed July 5, 1916, Army vaccine (+).
11	do	G	Thirteenth Cavalry	Field Hospital No. 3, Dublan, Mexico.	Oct. 14, 1916	do	Army vaccine Apr. 5, 1914 (+).
12	do	A	LS. C. Infantry	Base Hospital No. 2, Fort Bliss, Tex	Oct. 19, 1916	do	3 doses July 1916.—July 1, 1916; July 11, 1916; July 24, 1916, completed 24th; mobilization camp; Army vaccine (+).
13	Sergeant	Supp.	Sixteenth Infantry	Field Hospital No. 7, El Valle, Mexico.	Nov. 6, 1916	do	Completed May 11, 1914 (+).
14	Corporal	F	First Massachusetts Field Artillery.	Base Hospital No. 2, Fort Bliss, Tex	Nov. 7, 1916	do	3 doses State vaccine 1913; 1 dose State vaccine June, 1916.
15	Private	A	Fifth Cavalry	Field Hospital No. 7, El Valle, Mexico.	Nov. 10, 1916	do	No data.
16	do	D	First New Mexico Infantry.	Base Hospital No. 2, Fort Bliss, Tex	Nov. 15, 1916	do	Columbus, N. Mex., Army vaccine; 3 doses July-August, 1916 (+).
17	do	G	Thirteenth Cavalry	Field Hospital No. 3, Dublan, Mexico.	Dec. 21, 1916	do	No data.

Cases of paratyphoid A diagnosed at Department Laboratory No. 2, Mills Building, El Paso, Tex., from Aug. 1, 1916, to Jan. 1, 1917.

No.	Rank.	Company.	Regiment or corps.	Station.	Date of diagnosis.	Method of diagnosis.	Prophylaxis.
1	Private	I	Signal Corps	Field Hospital No. 3, Dublan, Mexico	Sept. 22, 1916	Blood culture	No data.
2	do	C	First Connecticut Infantry	Fort Huachuca, Ariz	Sept. 8, 1916	do	Do.
3	do	Hqrs.	Fifth New Jersey Infantry	Camp hospital, Douglas, Ariz	Sept. 13, 1916	do	Do.
4	Sergeant	A	do	do	Sept. 9, 1916	do	Do.
5		A	do	do	Sept. 6, 1916	do	Do.
6	Private	A	do	do	Sept. 1, 1916	do	Do.
7	do	A	do	do	Sept. 6, 1916	do	Do.
8	do	A	do	do	do	do	Do.
9	do	A	do	do	Sept. 24, 1916	do	Do.
10	do	A	do	do	Sept. 9, 1916	do	Do.
11	Corporal	F	do	do	Sept. 13, 1916	do	Do.
12	Private	F	Seventh Cavalry	Field Hospital No. 3, Dublan, Mexico	Sept. 23, 1916	do	Do.
13	do	M	do	do	do	do	Do.
14	do	M	do	do	do	do	Do.
15	Sergeant	M	do	do	Sept. 22, 1916	do	Do.
16	Private	C	Eleventh Cavalry	Mexico	Aug. 8, 1916	do	Do.
17	Corporal	F	do	Field Hospital No. 3, Dublan, Mexico	Sept. 20, 1916	do	Do.
18	Bugler	F	do	do	do	do	Do.
19	First sergeant	F	do	do	do	do	Do.
20	Horseshoer	F	do	do	Sept. 22, 1916	do	Do.
21	Sergeant	F	do	do	Sept. 20, 1916	do	Do.
22	Corporal	F	do	do	do	do	Do.
23	do	F	do	do	do	do	Do.
24	Sergeant	F	do	do	Sept. 18, 1916	do	Do.
25	Private	F	do	do	Sept. 20, 1916	do	Do.
26	do	F	do	do	do	do	Do.
27	do	F	do	do	Sept. 18, 1916	do	Do.
28	do	F	do	do	Sept. 20, 1916	do	Do.
29	do	F	do	do	do	do	Do.
30	Cook	F	do	do	do	do	Do.
31	Private	F	do	do	do	do	Do.
32	do	F	do	Mexico	Aug. 5, 1916	do	Do.
33	do		Truck driver, Quartermaster Corps.	do	Sept. 26, 1916	do	Do.
34	do	M	Seventh Cavalry	Field Hospital No. 3, Dublan, Mexico	Sept. 23, 1916	do	Do.
35	do		Medical Department	do	Sept. 28, 1916	do	Do.
36	do		Fourth Field Artillery	do	Sept. 27, 1916	do	Do.
37	Cook	M, G	Eleventh Cavalry	do	Sept. 28, 1916	do	Do.
38	Private	K	Thirteenth Cavalry	do	do	do	Do.
39	do	C	do	do	do	do	Do.
40	do	M, G	do	do	do	do	Do.
41		C	Seventh Cavalry	do	Oct. 1, 1916	do	Do.
42	Private	F	Tenth Cavalry	do	do	do	Do.
43	do	Supp.	Seventh Cavalry	do	Oct. 2, 1916	Feces culture	Do.

45	Private	B	North Carolina Cavalry	Base Hospital No. 2, Fort Bliss, Tex. (contracted in North Carolina).	Oct. 3, 1916	do	Do.
46	Corporal	C	Fourth Field Artillery	Field Hospital No. 3, Dublan, Mexico	do	do	Do.
47	Private	C	do	do	do	do	Do.
48	Cook	E	Seventh Cavalry	do	do	do	Do.
49	Private	C	First New Jersey Cavalry	Camp hospital, Douglas, Ariz.	Oct. 6, 1916	do	Do.
50	Horseshoer	I	Seventh Cavalry	Field Hospital No. 3, Dublan, Mexico	do	do	Do.
51	First-class private	M, D	Second California Infantry	Fort Huachuca, Ariz.	do	do	Do.
52	Corporal	L	Seventh Cavalry	Field Hospital No. 3, Dublan, Mexico	Oct. 7, 1916	do	Do.
53	do	H	do	do	do	do	Do.
54	Private	F	do	do	do	do	Do.
55	Corporal	K	Thirteenth Cavalry	do	do	do	Do.
56		K	Seventh Cavalry	do	do	Feces culture	Do.
57	Private	K	do	do	do	do	Do.
58	Sergeant	K	do	do	Oct. 8, 1916	Blood culture	Do.
59	First-class private	B	Second Engineers	do	do	do	Do.
60	Private	C	Fourth Field Artillery	do	Oct. 9, 1916	do	Do.
61	do	C	do	do	do	do	Do.
62	do	M	Seventh Cavalry	do	do	do	Do.
63	do	F	do	do	do	do	Do.
64	do	M	do	do	do	do	Do.
65	do	K	do	do	do	do	Do.
66	do	K	do	do	do	do	Do.
67	do	L	Thirteenth Cavalry	do	do	do	Do.
68	Sergeant	L	do	do	do	do	Do.
69	Private	M	do	do	do	do	Do.
70	do	A	Sixth New Jersey	Camp hospital, Douglas, Ariz.	do	do	Do.
71	Sergeant	F	Seventh Cavalry	Field Hospital No. 3, Dublan, Mexico	Oct. 10, 1916	do	Do.
72	Private		Ambulance Corps No. 1	do	Oct. 11, 1916	do	Do.
73	do	L	Thirteenth Cavalry	do	do	do	Do.
74	Sergeant	M	Seventh Cavalry	do	do	do	Do.
75	Private		Second Engineers	do	Oct. 14, 1916	do	Do.
76	do		Quartermaster Corps	do	do	do	Do.
77	Corporal	M	Seventh Cavalry	do	do	do	Do.
78	First-class private	M	do	do	do	do	Do.
79	do	M	do	do	do	do	Do.
80	Private	A	Thirteenth Cavalry	do	do	do	Do.
81	do	M. G.	do	do	do	do	Do.
82	do	M	Twenty-fourth Infantry	do	do	do	Do.
83	do		Medical Department	Field Hospital No. 7, El Valle, Mexico	Oct. 20, 1916	do	Do.
84	Sergeant	Hqrs.	First Delaware Infantry	Camp hospital, Deming, N. Mex	do Oct. 26, 1916	do Feces culture	Do. Do.
85	First-class private	D	Signal Corps	Field Hospital No. 3, Dublan, Mexico	Oct. 21, 1916	Blood culture	Do.
86	do		Medical Department	do	do	do	Do.
87	Private	C	Fourth Field Artillery	do	do	do	Do.
88	do	F	Seventh Cavalry	do	do	do	Do.
89	Saddler	E	do	do	do	do	Do.
90	Private	Hqrs.	do	do	do	do	Do.
91	Saddler	G	Thirteenth Cavalry	do	do	do	Do.
92	Private	M	Twenty-fourth Infantry	do	do	do	Do.
93	do	I	do	do	do	do	Do.

Cases of paratyphoid A diagnosed at Department Laboratory No. 2, Mills Building, El Paso, Tex., from Aug. 1, 1916, to Jan. 1, 1917—Continued.

No.	Rank.	Company.	Regiment or corps.	Station.	Date of diagnosis.	Method of diagnosis.	Prophylaxis.
94	Sergeant		First South Carolina Infantry	Base Hospital No. 2, Fort Bliss, Tex	Oct. 23, 1916	Blood culture	Died Oct. 30, 1916; perforated ulcer muscular valve.
95	....do	C	Thirteenth Cavalry	Field Hospital No. 3, Dublan, Mexico	Oct. 30, 1916	....do	No data.
96	Private	B	Fourth Field Artillery	Field Hospital No. 7, El Valle, Mexico	Oct. 31, 1916	....do	Do.
97	....do	L	Eleventh Cavalry	Base Hospital No. 2, Fort Bliss, Tex	Nov. 1, 1916	....do	From Dublan, Mexico, 2 weeks.
98	Sergeant		Quartermaster Corps	....do	Nov. 2, 1916	Bile culture	Ojo Frederico, Mexico.
99	Private	H	Fifth Cavalry	Field Hospital No. 7, El Valle, Mexico	Nov. 3, 1916	Blood culture	No data.
100	Machinist	A	Fourth Field Artillery	Field Hospital No. 3, Dublan, Mexico	Nov. 5, 1916	....do	Do.
101	Cook	Supp.	Seventh Cavalry	....do	Nov. 4, 1916	....do	Do.
102	Private	A	Fourth Field Artillery	....do	Nov. 6, 1916	....do	Do.
103	First-class private	K	Fifth Cavalry	Base Hospital No. 2, Fort Bliss, Tex	Nov. 13, 1916	....do	On leave from El Valle, Mexico; 2 doses paratyphoid A; incubation Oct. 22-29, 1916.
104	Civilian		Mexican	Cantonment Hospital, Columbus, N. Mex	Nov. 21, 1916	....do	No data.

Cases of paratyphoid B diagnosed at Department Laboratory No. 2, Mills Building, El Paso, Tex., from Aug. 1, 1916, to Jan. 1, 1917.

No.	Rank.	Company.	Regiment or corps.	Station.	Date of diagnosis.	Method of diagnosis.	Prophylaxis.
1	Corporal	F	First Massachusetts Field Artillery.	Fort Bliss, Tex	Sept. 11, 1916	Feces culture	No data.
2	Private	F	Eleventh Cavalry	Field Hospital No. 3, Dublan, Mexico	Sept. 23, 1916	Blood culture	Do.

DEPARTMENT LABORATORY NO. 3, NOGALES, ARIZ.

LABORATORY BUILDING AND EQUIPMENT.

The laboratory occupies a separate building on land leased from the town of Nogales, in proximity to Base Hospital No. 5. Construction of the building began on August 20, 1916, and the building was turned over for occupancy on September 16, 1916. Construction was supervised by Maj. Edward B. Vedder, Medical Corps, who materially altered the original plans of Maj. Clarence Le R. Cole, Medical Corps. Although the original plan was admirable, it is believed that the changes made by Maj. Vedder added greatly to the convenience and usefulness of the building.

The total cost of the building was $3,500. It is a frame structure 28 by 50 feet, with porches on three sides, and conforms generally to the type of building used in the construction of Base Hospital No. 5. On the main floor there are six rooms—a record office where the clerical work is done; two combined offices and workrooms for the director and his assistant; a large bacteriological laboratory; a commodious laboratory for chemical and pathological work; and a dust-proof room, finished in white enamel, which is equipped for the preparation of vaccines, careful animal work, and other procedures requiring absolutely aseptic technic.

Advantage was taken of the sloping terrain on which the laboratory stands and otherwise waste space beneath the building was utilized for a commodious preparation room in which sterilizers, electric water heater, water still, toilets, and apparatus for the preparation and sterilization of culture media are installed and, leading from this room, a storeroom and animal room, both of which are most conveniently arranged. A dumb-waiter connects the preparation room with the laboratories on the main floor. This arrangement makes possible the segregation of the various laboratory activities so that dust and dirt, leading to annoying contaminations of cultures and media, are reduced to a minimum.

The interior finish on the main floor is tongue-and-groove Oregon pine ceiling. The tops of laboratory benches are of 2½-inch sugar pine, finished with a black, acid-proof stain. Drawers and cupboards are built in beneath the benches at convenient intervals. The building is lighted by electricity, and power plugs are placed at intervals for incubators, centrifuges, and other apparatus operated by electricity. An electric centrifuge and shaking machine are mounted on a solid concrete pillar extending to the ground, which obviates vibration and noise. The building is supplied with gas for the operation of Bunsen burners, sterilizers, and other gas-heated apparatus. Windows and doors are screened throughout. The plumbing consists of three laboratory sinks, two lavatories, and two toilets. Hot water is furnished by an electric heater connected with a 30-gallon tank.

The laboratory equipment is new throughout, most complete, and exceedingly satisfactory in every way. The promptness and facility with which requisitions for apparatus and supplies have been approved offers most gratifying evidence of the policy of the Surgeon General's Office to encourage scientific work.

LABORATORY PERSONNEL.

The laboratory personnel consists of Capt. George B. Foster, jr., Medical Corps; Capt. William B. Meister, Medical Corps; two sergeants and three privates, first class, Medical Department. Capt. Foster relieved Maj. Edward B. Vedder, Medical Corps, upon the latter's return to the Army Medical School, September 23, 1916, and Capt. Meister reported for duty on September 28, 1916.

SCOPE OF LABORATORY WORK.

The first laboratory work was performed during the latter part of September and consisted of routine clinical laboratory examinations of material from Base Hospital No. 5. The functions of a department laboratory, serving Base Hospital No. 5, Nogales, Ariz; the camp hospital at Douglas, Ariz.; the post hospital, Fort Huachuca, Ariz.; and the various troops of the Arizona district in the field, were assumed on October 4, 1916. During the slightly over three months that the laboratory has been in operation 4,018 examinations have been reported as summarized below:

Summary of clinical laboratory examinations, Department Laboratory No. 3.

Blood:		
For malaria		191
Positive	19	
Negative	172	
Leucocyte counts		218
Erythrocyte counts		51
Differential leucocyte counts		170
Hemoglobin estimations		31
Blood cultures, miscellaneous		25
Sputum:		
For tubercle bacilli		234
Positive	9	
Negative	225	
For other organisms		95
Urine:		
Chemical analyses		445
Microscopical examinations		42
Feces:		
For parasites and ova		15
For occult blood		
Stomach contents, chemical analyses of		
Spinal fluid:		
Cell counts		
For meningococci		1
Positive	7	
Negative	10	
Throat cultures for diphtheria		13
Positive	1	
Negative	135	
Cultures of pus, exudates, etc		12
Urethra smears for gonococci		57
Histological examinations of tissues		1
Autogenous vaccines prepared		
Water:		
Bacteriological examinations		
Chemical analyses		
Animal inoculations		4
For diagnosis	6	
For immune sera, etc	43	
Dark-field examinations for treponema pallidum		

Typhoid and paratyphoid examinations:			
Suspected cases examined			90
Positive for B. typhoid, 3; B. paratyphoid A, 1; B. paratyphoid B, 2. Negative for B. typhoid, 87; B. paratyphoid A, 89; B. paratyphoid B, 88.			
Convalescents examined			29
Positive for B. typhoid, 0; B. paratyphoid A, 0; B. paratyphoid B, 0. Negative for B. typhoid, 29; B. paratyphoid A, 29; B. paratyphoid B, 29.			
Suspected carriers or contacts examined			15
Positive for B. typhoid, 0; B. paratyphoid A, 0; B. paratyphoid B, 1. Negative for B. typhoid, 15; B. paratyphoid A, 15; B. paratyphoid B, 14.			
Agglutination tests			16
Positive for B. typhoid, 1; B. paratyphoid A, 0; B. paratyphoid B, 2. Negative for B. typhoid, 15; B. paratyphoid A, 16; B. paratyphoid B, 14.			
Blood cultures			57
Positive for B. typhoid, 1; B. paratyphoid A, 1; B. paratyphoid B, 1. Negative for B. typhoid, 56; B. paratyphoid A, 56; B. paratyphoid B, 56.			
Feces			58
Positive for B. typhoid, 2; B. paratyphoid A, 1; B. paratyphoid B, 2. Negative for B. typhoid, 56; B. paratyphoid A, 57; B. paratyphoid B, 56.			
Urine			14
Positive for B. typhoid, 0; B. paratyphoid A, 0; B. paratyphoid B, 0. Negative for B. typhoid, 14; B. paratyphoid A, 14; B. paratyphoid B, 14.			
Dysenteries, examinations of feces for			27
Bacillary types		9	
Positive	0		
Negative	9		
Entamebic type		18	
Positive	12		
Negative	6		
Gonococcus fixation tests			49
Wassermann tests			807
Positive		160	
Negative		647	
Reexaminations		154	
Autopsies			14
Examinations of suspected narcotics, foods, beverages, etc			5
Miscellaneous examinations not otherwise listed			10
Total examinations for the period			4,018

Analysis of the above data shows that the work of a laboratory of this sort covers a large field, embracing bacteriology, pathology, chemistry, parasitology, serology, and immunology. The relatively large number of clinical laboratory examinations is explained by the fact that this laboratory functions not only as a department laboratory but as the clinical laboratory of Base Hospital No. 5 as well.

It is believed that the functions of a diagnostic laboratory have been fulfilled satisfactorily. This assumption is based upon very gratifying replies to a circular letter from the laboratory requesting information as to the character of the service and inviting constructive criticism. The replies expressed general satisfaction with the service.

An endeavor has been made to cooperate with the district sanitary inspector by reporting immediately all positive findings in infectious diseases, thus enabling him to institute preventive measures without delay. An investigation for the detection of typhoid carriers was made in Company E, First California Field Artillery, and the detachment Medical Department, Second Idaho Infantry. This investigation resulted in the isolation of *B. paratyphosus* from the feces of soldier of the Idaho organization who gave a history of a continue fever, diagnosed clinically as typhoid, in 1900. His mother an sister contracted the same fever, apparently by contact, during th illness of the soldier. There was no history of known subsequen contact infections. The history in this case may be reconciled t the bacteriological findings if we assume that the illness in 1900 wa paratyphoid fever, simulating typhoid clinically, and that since tha date the soldier has been a paratyphoid carrier. An investigation o meningitis contacts has just been completed, as reported in detai below.

INFECTIOUS DISEASES.

Typhoid and paratyphoid infections.—Three cases of typhoid feve were diagnosed during October, but no cases have been detecte since that time. One case was a soldier of the Fifth New Jerse Infantry, stationed at Douglas, Ariz., and the remaining two case occurred in Battery E, First California Field Artillery, and th detachment Medical Department, Second Idaho Infantry, respec tively, stationed at Nogales, Ariz. The typhoid bacillus was isolate from the blood and feces in two of the cases and from the fece alone in one case. The bacteriological diagnoses made by this lab oratory were confirmed at the Army Medical School.

Paratyphoid infections were diagnosed bacteriologically in thre cases. Two of these infections were due to *B. paratyphosus* B an one case was of the paratyphoid A type. The large number of re quests for typhoid-paratyphoid examinations indicate that medica officers are exercising every effort to avoid missing mild and atypica cases, and it seems safe to assume that no typhoid or paratyphoi infections have escaped detection.

Dysenteries.—Entamebic dysentery has been encountered in 1 cases. The histories point to the infections having been contracte locally in the majority of the cases. The disease is endemic here a in most other sections of the country. No case of bacillary dysenter has been seen.

Malaria.—A diagnosis of malaria has been made in 17 cases. On case was of the estivo-autumnal type, the remainder being tertiar Seven of the cases have occurred recently among the Alabama troop and represent recurrences of latent infections. The 10 earlier case occurred principally among northern troops and were undoubtedl contracted here. Malaria occurs at all seasons of the year in thi vicinity.

Cerebrospinal meningitis of the epidemic type has been encountere twice. One case was from the District of Columbia Signal Corps an the other from the Sixth United States Field Artillery. Both ende in recovery as a result of early diagnosis by lumbar puncture an repeated intraspinal injections of antimeningitis serum. At the r quest of Lieut. Col. Bratton, Medical Corps, 128 contacts were exam ined in the organizations from which these cases came. The secre tions collected on swabs from the posterior nares and nasopharyn were emulsified in sterile distilled water, and blood-agar plates wer prepared from each emulsion. After 24 hours' incubation, coloni that resembled those of meningococci were fished and stained by Gram's method. Colonies showing Gram-negative diplococci were then subcultured on Hiss's serum-water media, containing lactose, saccharose, dextrose, and maltose. Gram-negative diplococci, morphologically indistinguishable from the meningococcus, were isolated in a number of cases, but in no instance did these organisms fulfill the requirements of the meningococcus by fermenting dextrose and maltose without acidulation of the other saccharides.

Diphtheria has been diagnosed in one instance only. It is believed that very few, if any, cases have escaped detection, as cultures are made routinely at Base Hospital No. 5 in all cases of sore throat.

Anthrax.—One case of anthrax occurred in the First Alabama Infantry. The clinical diagnosis was cellulitis of the face. Anthrax bacilli were demonstrated in smears and *B. anthracis* was isolated from the lesion in pure culture. Recovery followed radical excision of the malignant pustule and treatment with Sclavo's serum.

Acute respiratory infections have given most concern to the sanitary inspectors since the onset of cold weather. As most of these infections were diagnosed as influenza, a bacteriological investigation was requested by Col. Bratton. A series of about 20 cases were selected at random and cultures of the sputum, collected in sterile bottles, were made on streaked blood-agar plates. *B. influenzæ* was demonstrable in one-third of the cases, but never in predominating numbers. The pneumococcus, micrococcus catarrhalis, streptococcus viridans, and various hemolytic streptococci were found more frequently than *B. influenzæ* and in infinitely greater numbers. These findings are in accord with those of various investigators in large cities throughout the country during the epidemics of grip during the winter of 1915–16.

Recently pneumonia has been prevalent, especially among the Alabama troops. Autopsies on fatal cases have shown the lesions of typical lobar pneumonia. Cases of the broncho-pneumonic type have not been encountered. The fact that pneumonia is largely confined to the Alabama troops suggests some predisposing cause that is not common to the other troops. The thought has occurred, and Col. Bratton has held to this opinion from the start, that latent malaria and hookworm infections, by sapping the normal powers of resistance to infection, may be important factors. The preliminary laboratory results support this contention. The number of pneumonia cases in which the feces have been examined is small, but the fact that 88 per cent of these show hookworm infection, while only 20 per cent of the same soldiers admitted with other conditions have been shown to harbor the parasite, is suggestive at least that the investigation of a large number of cases will give credence to the contention. From now on the feces of all Alabama soldiers admitted to hospital will be examined for hookworm and a control series of a squad from each company of the three regiments will be examined simultaneously.

WASSERMANN REACTION.

The technic of the Wassermann test as performed in this laboratory is identical with that used at the Army Medical School by Maj. Edward B. Vedder, Medical Corps. Were convention to be followed a report of this sort should contain a lengthy discussion of the merits of the test, bolstered by an array of statistics. It is felt that this is

no longer necessary. The Wassermann test as standardized b
Maj. Vedder is thoroughly reliable as a diagnostic test and that i
value is appreciated by medical officers throughout the service
attested by the place it has taken as a routine diagnostic procedur
A Wassermann test is required by orders at the camp hospital
Douglas on every case admitted, and it is a routine procedure
some of the wards of Base Hospital No. 5. This has resulted in
large number of negative reports, but these have been of value
eliminating syphilis in many cases. Very frequently much ligl
has been thrown upon obscure medical and surgical cases by a pos
tive Wassermann reaction. This test should take its place, alor
with the urinalysis and blood pressure reading, in every thorough
worked up case.

SUPPLIES ISSUED.

Many requests have been received from the stations served
this laboratory for stock vaccines, culture media, mailing case
etc., as contemplated by Circular 51, department surgeon's offic
Southern Department, August 12, 1916. These requisitions ha
been filled upon the day of receipt. In addition to the supplies co
templated in the circular quoted, a supply of biological product
including antimeningitis serum, antitetanic serum, antidiphther
serum, and Sclavo's antianthrax serum have been kept in stoc
This rather unusual procedure has been necessitated because of t
meager stock of these products carried by local dealers and the d
lay occasioned by obtaining them from a distance when cases ari
requiring their use.

NEEDS AND RECOMMENDATIONS.

The laboratory is splendidly equipped to do not only the diagnost
work required of it, but to expend its activities so as to embra
more investigative work.

It is understood that plans for contonments at Nogales, Dougl
Naco, and Yuma have been approved, which indicates that troo
will be in this district indefinitely. In the event of military ope
tions in Mexico, this laboratory could serve not only this base, b
is situated on a railroad extending from Nogales to Guaymas on t
Gulf of California and could handle with dispatch the work of t
line of communications. The building is sufficiently commodio
to accommodate double the personnel now on duty and expansi
simply resolves itself into a question of increase in personnel.

Situated as it is, with a large hospital at its door, much time th
could otherwise and should be devoted to investigative work
occupied with routine clinical laboratory examinations. T
routine work is of the highest importance; but, on the other har
many valuable opportunities to investigate the cause and modes
transmission of infectious diseases are lost because of lack of tin
It is recommended that an officer of the recently created resear
division of the Medical Corps be detailed at this laboratory in ad
tion to the personnel now allotted.

As regards enlisted personnel an experienced sergeant, first cla
is urgently needed. This detail would relieve the officer in char
of much clerical work that now infringes upon days filled with ot
duties.

A matter that should receive departmental consideration is the uestion of extra pay for enlisted laboratory assistants such as is ow available for enlisted dispensary, surgical, and dental assistants nd wardmasters. The work required of laboratory assistants, at ast in this laboratory, entails longer hours of duty than that of ie other classes mentioned and an equally high degree of skilll nd training. It is only equitable that they should receive extra noluments for their extra efforts.

A few minor additions to the laboratory building are necessary, ich as ceiling the preparation room and animal room in conformity ith the rest of the building. The necessity for this is shown in the hotograph which accompanies this report. A cold room for the orage of media and biological products is also desired. Estimates r the construction of these items will be forwarded at the proper me.

Capt. George B. Foster, Medical Corps, reports on Rosenow antigen eatment of pneumonia as follows:

> 1. At the request of the commanding officer, Base Hospital No. 5, I have carefully vestigated the advisability of using the Rosenow method of treating pneumonia ith specific antigens and, after going over the matter with Capt. Flynn, who is eating most of the cases, we have come to the conclusion that the method has no lvantages over the treatment now in vogue at the hospital.
>
> 2. Eighty-eight cases of pneumonia have been admitted to date and 12 of these ive died, establishing a death rate of 13.6 per cent. The death rate shown by Roseow in a series of cases comparable to ours in age—namely, 21 to 30 years—is 18 per nt. In his control series not treated specifically the death rate was 22.2 per cent. will be seen that the difference in the percentages is not great and that our death te here is considerably lower than in his series of specifically treated cases. Furermore, although Rosenow instituted this specific treatment in 1911 and has reported s results at various times since then, I am unable to find favorable results with this eatment reported by others. Finally, the technic required for the preparation of ese antigens is complicated and time consuming and, although the laboratory is epared to carry on the work, if you desire it, it is believed that the time required n be spent much more profitably on other work.
>
> 3. I feel that this explanation is due your office and that of the department suron, as through your efforts and the prompt action of the department surgeon's office additional medical officer, Capt. Wilde, has been detailed for duty here.
>
> 4. Although Capt. Wilde has been on duty a few days only, I believe he will prove be a most valuable acquisition. He seems to have the necessary enthusiasm, is tentive to duty, and interested in his work, and I hope that it may be arranged r him to remain here permanently.

HOOKWORM SURVEY—SICK IN HOSPITAL.

1. The following results have been obtained in the hookworm irvey of Alabama soldiers admitted to Base Hospital No. 5 to date:

Diagnosis.	Total examinations.	Positive.	Negative.	Per cent positive.
				Per cent.
ieumonia	50	25	25	50
fluenza	41	9	32	21.9
onchitis	18	9	9	50
nsillitis	21	9	12	42.8
idetermined	11	3	8	27.2
l other conditions	53	7	46	13.2

tal examinations of all conditions	194
tal showing hookworm	62
rcentage of cases positive.....per cent	31.9

Lieut. Col. T. S. Bratton, Medical Corps, reports on the sickness c
Alabama troops as follows:

In view of the statements made by Capt. Foster the Rosenow treatment will n
be used, but it is proposed to use the laboratory to help eradicate hookworm di
ease in the Alabama troops, for I am convinced that the lowered resistance show
by these troops is, in a great measure, due to the presence of hookworm disease in
large percentage of the troops.

This matter of hookworm disease in the Alabama troops was first impressed on m
at the maneuvers at Manassas in 1904, and when they arrived at this station I directe
the attention of the medical officers of the hospital and laboratory to this fact, in a
informal way. The laboratory has found a large per cent of the sick suffering fro
the hookworm infection. Of 50 cases of pneumonia 25 showed hookworm. Th
First Alabama Infantry, which shows by far the greatest number of pneumonia
came from the lower part of Alabama, where the soil is sandy and where the infectio
is quite prevalent. Therefore I think the solution of the sickness in the Alabam
troops is to eradicate the hookworm infection, and with the laboratory to help we wi
institute a vigorous campaign along that line, but we will need considerable thym
etc., and to hasten and facilitate our work it is requested that the requisition for th
base hospital, herewith inclosed, be furnished at once. I will see that it is distribute
to the different organizations from the base hospital as they require it.

A table prepared by Capt. Foster, showing the prevalence of hookworm disease i
the troops, is inclosed.

MEDICAL DEPARTMENT.

The following statement shows the strength of the personnel ommissioned, enlisted, and employed by contract or otherwise, of ie Medical Department on June 30, 1917.

edical officers	489
pproved Medical Corps candidates awaiting confirmation	39
edical reserve officers, active duty	3,636
ontract surgeons	9
ental surgeons, commissioned	86
eterinarians, commissioned	57
rmy Nurse Corps	259
rmy Nurse Corps reserve on active duty	917
edical Department, enlisted personnel	16,773
ivilian employees, Medical Department at large	934
Total medical personnel	23,199

MEDICAL CORPS.

The Medical Corps is composed of the commissioned medical officers f the Regular Army:

uthorized strength June 30, 1917	2,100
service June 30, 1916	443
eappointed as captain	1
ppointed to June 30, 1917	58
Total	502
osses during the year	13
In service June 30, 1917	489

On October 16, 1916, 65 candidates who had passed the preliminary xamination for appointment in the Medical Corps reported at ashington to take the course of instruction at the Army Medical chool. Fifty-eight successfully completed the course of instruction t the school and were graduated March 3, 1917, and recommended r appointment in the Medical Corps of the Army.

On March 14, 1917, 49 candidates who had passed the preliminary xamination reported at the Army Medical School for the required ourse of instruction. Of these 41 successfully completed the course nd were graduated May 31, 1917. Thirty-nine of them were recom-ended for appointment in the Medical Corps of the Army, but so r have not been confirmed, thereby making the gain by appointment ly 58.

Losses during the fiscal year.

	Lieutenant colonel.	Major.	Captain.	Total.
Died	2		2	
Retired		3		
Resigned			5	
Wholly retired			1	
Aggregate	2	3	8	

The following promotions were made up to June 30, 1917: Nin lieutenant colonel 75 captains to be majors, 16 lieutenants to be captains.

The department held eight preliminary examinations for appoin ment in the Medical Corps. The dates and the results of thes examinations are tabulated below:

Date.	Invited.	Declined.	Fail to appear.	Examined.	Physical disability.	Withdrawn.	Rejected.	Qualifie
July 17, 1916	106	22	11	73	3		35	
Aug. 14, 1916	83	8	18	57	7		28	
Sept. 5, 1916	38	3	4	31	3	1	19	
Jan. 2, 1917	116	17	17	82	7		39	
Feb. 5, 1917	53	2	9	42	1	2	16	
Apr. 2, 1917	15			15	2		9	
May 7, 1917	71	4	8	59	3		20	
June 4, 1917	376		120	256	29	2	105	
Total	858	56	187	615	55	5	291	

Seven qualified applicants were left over from last year, making total of 291. Of these 65 entered the school in October and 49 March. Another class is to begin in July, 75 going to the Arn Medical School and 90 to the training camp at Fort Benjam Harrison, a special ruling permitting those who successfully pass t course to be appointed in the Medical Corps, and examinations a being held on the first Monday of each month.

MEDICAL OFFICERS' RESERVE CORPS.

The Medical Reserve Corps went out of existence on June 3, 191 by operation of law and the Medical Officers' Reserve Corps car into existence. The officers of the old corps, for the most pa transferred to the new, though some were lost by not accepting t new commissions before the old ones expired. Since the new cor provides for increased rank, many men who had been on active du for some time were promoted to captains and majors.

An enormous increase in the personnel of the Medical Office Reserve Corps is in progress. The following figures show the numb of actives and inactives on June 30, 1917:

On roster June 30, 1916	1,
Appointed during year	2,
	4,

Losses during the year:		
Resigned	175	
Discharged	7	
Died	11	
Commissions vacated by appointment to regular corps	58	
		251
On roster June 30, 1917		4,465

Of the 4,465 on roster June 30, 1917, 3,636 were on active duty and 829 on inactive list.

On active duty June 30, 1916		146
Ordered to active duty during year		3,730
		3,876
Relieved from active duty	182	
Commissions vacated	58	
		240
On active duty June 30, 1917		3,636

An officer of the Medical Officers' Reserve Corps residing in the vicinity of each military post has been designated as a locum tenens, and the policy has been adopted of calling such officer into actual service for duty at his post when all the regular medical officers thereat are called upon to accompany troops into the field.

CONTRACT SURGEONS.

In service June 30, 1916	17
Contracts made during year	2
Total	19
Contracts annulled during year	10
Contracts in force June 30, 1917	9

These contract surgeons are on duty at arsenals, remount depots, transports, etc., at $75 or $150 per month, depending upon whether they are on half or full time contracts, respectively.

It is planned to use contract surgeons much more extensively than has been the custom, particularly for short-time or special service and under conditions when it would be impracticable to utilize reserve medical officers.

DENTAL CORPS.

Dental surgeons (first lieutenants) in service June 30, 1916	40
Appointed during the year	48
	88
Retired with grade of captain	2
On duty June 30, 1917	86
Awaiting confirmation	32
Total	118

Acting dental surgeons:		
Number in service June 30, 1916		35
Contracts annulled by acceptance of commission	32	
Contracts annulled	3	
		35
On duty June 30, 1917		0

From February to April, 1917, the acting dental surgeons unde contract were commissioned as first lieutenants in the Dental Corp after examination. Examinations for admission to the Dental Corp were held on July 10, 1916, and May 7, 1917. Of 258 invited 18 reported for examination, and of these 49 were found qualified Seventeen were commissioned in October and 32 have been recommended but not confirmed. Another examination is scheduled fo July 2, for which 460 have been invited.

DENTAL OFFICERS' RESERVE CORPS.

This branch of the Officers' Reserve Corps established by th national defense act, June 3, 1916, is on the verge of rapid growtl Four hundred and ninety-four were recommended prior to June 3(Of these 88 accepted and 20, who were assigned to Red Cross bas hospitals, were on duty June 30. The records are now in such co dition that approximately 3,000 will be recommended within the nex three months.

VETERINARY CORPS.

This is a new branch of the Medical Department established by ac of Congress approved June 3, 1916. There were several examin tions held at odd times for quartermaster veterinarians, beginnin September 10, 1916. Of 67 examined 17 were disqualified and 5 accepted. Of those 5 qualified with the grade of major after 2 years' service, 7 with the grade of captain after 15 years' service, 3 with the grade of first lieutenant, and 7 with the grade of second lie tenant. In the examination held July 17, 1916, for appointment fro civil life 74 were invited, 25 were rejected as above age, 14 failed t appear, 3 withdrew, and 27 were examined. Of these 23 we rejected and 4 were accepted. Three were appointed as second lie tenants from March 17, 1917, as one declined the appointmen Contract veterinarians are now no longer employed.

VETERINARY OFFICERS' RESERVE CORPS.

The veterinary section of the Officers' Reserve Corps was estal lished by the national defense act of June 3, 1916. It is growin rapidly, for 446 veterinarians were recommended as second lieute ants, Veterinary Officers' Reserve Corps, prior to June 30, 1917. C these 85 had accepted and 47 were on active duty.

Enlisted Force of the Medical Department.

Strength at date of last report, June 30, 1916:	
Sergeants first class	3
Sergeants	5
Corporals	
Cooks	1
Privates first class and privates	3, 5
Total	4, 6

Gained July 1, 1916, to June 30, 1917:	
By enlistment	10,892
By reenlistment	162
By transfer from the line	2,410
Returned from desertion	230
Total	13,694
Loss during the same period:	
By order	223
By sentence general court-martial	212
For disability	188
For re-enlistment	159
By transfer to the reserve	70
By retirement	24
By transfer to the line	227
By desertion	398
By death, due to disease	51
By other losses	39
Total	1,591
Leaving in service June 30, 1917:	
Master hospital sergeants	18
Hospital sergeants	24
Sergeants first class	640
Sergeants	899
Corporals	385
Cooks	375
Horseshoers	4
Saddlers	8
Farriers	8
Mechanics	9
Privates first class and privates	14,403
Total	16,773

ARMY NURSE CORPS.

The authorized strength of the Army Nurse Corps for the fiscal year ending June 30, 1917, was for 206 nurses, but the moblization of the Regular troops and militia on the Mexican border having resulted in the establishment of many hospitals at which nurses were needed, an addition of 276 nurses was authorized early in the year to meet the emergency. Nurses were appointed in the regular corps as rapidly as possible, and their number was further augmented by the assignment of a large number from the reserve, the enrolled nurses of the American Red Cross constituting the reserve. During the year, nurses were sent to the following places;

Base Hospital No. 1, Fort Sam Houston, Tex.;
Base Hospital No. 2, Fort Bliss, Tex.;
Base Hospital No. 3, Brownsville, Tex.;
Base Hospital No. 4, Eagle Pass, Tex.;
Base Hospital No. 5, Nogales, Ariz.;
Camp hospital, Deming, N. Mex.;
Camp hospital, Douglas, Ariz.;
Camp hospital, Laredo, Tex.;
Camp hospital, Llano Grande, Tex.;

Camp hospital, McAllen, Tex.;
Camp hospital, Marfa, Tex.;
Cantonment hospital, Columbus, N. Mex.;

and to the hospital train which has its headquarters at Camp Wilson Tex. With the withdrawal of the troops, the work at these place gradually decreased, and nurses were withdrawn from Columbus Llano Grande, McAllen, early in the year, and later on, from Marf and Deming. The quarters provided for the nurses were temporar structures, but comfortably furnished, and in the main, very satisfactory. The maximum number of nurses for service on the borde was 201 on February 28, after that the number decreased as the nee grew less. Shortly after the declaration of war April 6, 1917, plan were made to send six base hospitals to Europe for service with th British forces. The hospitals designated were:

Base Hospital No. 4 of Lakeside Hospital, Cleveland, Ohio.;
Base Hospital No. 5 of Peter Brent Brigham Hospital, Boston Mass.;
Base Hospital No. 2 of Presbyterian Hospital, New York, N. Y.;
Base Hospital No. 10 of Pennsylvania Hospital, Philadelphia, Pa.
Base Hospital No. 12 of Mercy and Wesley Hospital, Chicago, Ill.
Base Hospital No. 21 of Barnes Hospital, St. Louis, Mo.;

with a total of 436 nurses. Two of the nurses attached to Bas Hospital No. 12, Miss Helen Wood and Mrs. Edith Ayres, wer accidentally killed while sitting on the deck of the S. S. *Mongolia* en route to Europe, by fragments of brass which struck them, due t the faulty discharge of a gun on the after deck of the steamer. Mis Emma Matzen attached to the same hospital sustained some injurie which fortunately did not prove to be serious.

The following base hospitals were sent to France for duty with th American Expeditionary Forces:

No. 18, Johns Hopkins, Baltimore, Md.;
No. 6, Massachusetts General Hospital, Boston, Mass.;
No. 15, Roosevelt Hospital, New York, N. Y.;
No. 17, Harper Hospital, Detroit, Mich.;

with a total of 295 nurses. Nurses have also been sent to the following posts:

Fort Myer, Va.;
Madison Barracks, N. Y.;
Plattsburg Barracks, N. Y.;
Fort Snelling, Minn.;
Fort Benjamin Harrison, Ind.;
Fort Ethan Allen, Vt.;
Fort Oglethorpe, Ga.;
Fort McDowell, Cal.;
Mobilization camp, Syracuse, N. Y.

Upon request of the Secretary of War the bureau of immigration o June 13, authorized the use of Island No. 3, Ellis Island, N. Y., fo moblization of members of the Army Nurse Corps ordered abroad Comfortable quarters were provided, accommodating 225 nurses subsistence being furnished at the restaurant on the island, unde contract with the department quartermaster, Eastern Department which arrangement has proved most satisfactory.

During the year 1,853 requests were received for application blanks There were 57 discharges and 154 appointments of the regular corps

,053 reserves nurses were assigned to active duty and 131 relieved. The daily average for the regular corps was 221.97 and for the reserve 99.83, total 421.80. On June 30 there were 259 nurses in the regular corps and 917 reserve nurses on duty, making a total of 1,176 nurses.

Owing to the great increase in the cost of living, the pay of the Army Nurse Corps should be increased to $60 on the first appointment, and allowance for commutation of ration from 40 to 75 cents per day. The rate of 40 cents is entirely inadequate, especially at the smaller tations. For nurses in Europe at least $1 is required. The defining of the status of the members of the Army Nurse Corps is also highly advisable, and while the conferring of actual rank upon them may not be feasible, steps should be taken to give them a definite standing in he Military Establishment. There is also no retirement for the corps, and as nurses have been employed by the Medical Department since 898, a period of 19 years, some provision should be made for them.

ARMY MEDICAL SCHOOL.

Maj. Harold W. Jones, Medical Corps, reported for duty at t school on October 8, 1916, and was assigned to duty as adjutan secretary of the faculty, professor of sanitary tactics, and assista professor of medical department administration.

Col. William O. Owen, Medical Corps, was detailed as profess of medical department administration during the absence on fiel duty of Col. James D. Glennan, Medical Corps, and performed suc duties until relieved by War Department orders, dated March 1917.

Maj. Philip W. Huntington, Medical Corps, was assigned to dut at the school as professor of Roentgenology vice Capt. Arthur Christie, Medical Corps, per War Department orders dated Septen ber 14, 1916.

Maj. Matthew A. Reasoner, Medical Corps, was relieved from dut at the school as assistant professor of bacteriology per War Depar ment orders dated May 28, 1917.

Capt. Corydon G. Snow, Medical Corps, was assigned to duty the school as assistant professor of bacteriology per War Depar ment orders dated September 16, 1916.

First Lieut. Cyrus B. Wood, Medical Corps, was assigned to dut at the school as assistant professor of sanitary chemistry per W Department orders dated March 10, 1917.

The twenty-first session of the school began on October 1, 1916.

Owing to the increase of the Army and the large number of existi and prospective vacancies in the Medical Corps occasioned thereb it was essential that provision be made for the training of mu larger classes than had been previously accommodated. The teachi and laboratory facilities being entirely inadequate at the buildi located at 721 Thirteenth Street NW., a search was begun for larger building, and after considerable difficulty, one apparent meeting the requirements, located at 462 Louisiana Avenue NW was secured. This building was formerly occupied by the offices the District government and later by the Department of Commer It has six stories with about 57,000 square feet of floor space. It very well adapted for teaching and laboratory purposes and accomm dated a class of 75 students. The several floors of the building a utilized by the school as follows:

Sub-basement: Heating and steam plant.

Basement: Animal room, large storeroom, shop for mechani and storeroom for photographic supplies.

First floor: Waiting room, information room and telepho exchange, students' locker room, X-ray and photographic roo library, and small storeroom.

Second floor: Offices of the commandant, adjutant, chief cler faculty room, record room, lecture hall, and eye room.

Third floor: Chemical instruction laboratory, chemical working aboratory, special bacteriological laboratory, writing room for fficers awaiting orders for foreign service, and storeroom.

Fourth floor: Office of assistant professor of bacteriology, physical xamining room, vaccine laboratories, incubators, vaccine preparaion rooms, packing room, vaccine storage refrigerators, and special aboratory.

Fifth floor: Offices of the officer in charge of the bacteriological aboratories and assistant, clerks' office, large students' laboratory, pecial laboratories, and printing room.

Sixth floor: Physical exercise room, which is also used as a physical xamination and written examination room; histological laboratory; rivate office for the use of the chief of the laboratory division, urgeon General's Office, and sleeping rooms for guards and officers hose duties make it necessary for them to remain in the building uring the night.

TWENTY-FIRST SESSION.

First section began October 16, 1916, and ended February 28, 1917.

Second section began March 14, 1917, and ended June 5, 1917.

The number of accepted candidates appointed in the Medical eserve Corps and ordered to the school for instruction was 115. f this number 1 resigned after reporting and before commencing he course, and 1 was relieved from attendance and ordered to his ome by reason of inaptitude before the completion of the course.

No members of the Organized Militia attended either section.

The post-graduate course for officers of the Medical Corps was ot given.

Of the 113 student candidates who completed the course of instrucion, 101 qualified at the final examinations. Of this number 98 ere recommended for commission in the Medical Corps, 1 failing o receive such recommendation because of deficiency in general ptitude for the military service, and 2 by reason of physical disualifications.

The third section of the twenty-first session will commence ometime during the month of July.

A report of the Army Medical School would be entirely inadequate f it did not include a summary of the large fields of activity in which t is engaged aside from its function as a teaching institution.

Its activities are summarized as follows:

During the year just closed the mobilization of practically the ntire National Guard, the increase in the Regular Army and Navy, he requirement that paratyphoid vaccine be administered to all hose in the military service, and the preparations for the mobilizaion of the National Army have required an enormous production f vaccine. Had the school remained in the building formerly ccupied by it the demands of the service could not have been uccessfully met. The production of vaccines has gone forward ithout delay which reflects great credit on the officers and enlisted en engaged in that work. Not only has the quantity produced een adequate at all times, but the requirements for additional lassware, new laboratory installations and apparatus, have been et with no interruption and vaccines have been packed and shipped, so far as practicable, within 24 hours after receipt at the school (the requests. As many as 57 shipments have been made in one da The cost value of the vaccines manufactured at this school durin the year was approximately $240,000. For the commercial vaccin this represents a retail market value of $1,200,000, a saving to t Government of approximately $960,000.

Numerous improvements have been made in the vaccine roon including the installation of large refrigerators, a mammoth inc bator, etc.

There were 6,701 Wassermann reactions performed during t past year. This at ordinary commercial rates of $5 per test woul have cost the Government $33,505.

A liberal estimate of the cost of this work, including the salaries one major and one sergeant, is only $6,364.

This item alone represents a saving to the Government of $27,14

Work in the chemical laboratory has been conducted along routi and well established lines.

The X-ray laboratory has been greatly enlarged, new apparat installed, and a photographic room added. In addition to the teac ing work, this department has done a large amount of work for t officers and enlisted men and their families stationed in and ne Washington. These patients were sent here by the attending surgeo

The large amount of X-ray work required by St. Elizabeths Ho pital was also done here.

A large amount of photographic negatives of general subject lantern slides, and microphotographs were made.

An X-ray technician, who is an electrical mechanical expert, ca ried on the roll of civilian employees, has recently been assigned this department, and his services are available for installation a repair work at any military establishment of the Army.

A very important function of the school is the making of physic examinations of officers for promotion and of applicants for appoin ment in the various Reserve Corps sections of the Army, etc. T amount of time consumed and the labor involved by having the examinations made by one officer, the uncertainties connected wi the performance of this work, and the constant changes in deta for the various examining boards made it advisable to inaugurate system, which examinations could be made systematically and t records secured against loss. At the present time the services from 5 to 10 officers of the Medical Reserve Corps who are awaiti orders for foreign service are utilized in physical examination wor By this plan fully 50 to 60 physical examinations may be made dai without confusion. At the close of the day the physical examinati forms, properly filled in, are delivered to the office of the adjuta and in order to guard against error, are carefully gone over befo being forwarded to the proper office. During the two and one-h months from April 15 to June 30, approximately 1,000 examinatio were made, with a constant increase in the daily number toward t close of the period of this report. If necessary, the school can hand 100 physical examinations a day without serious difficulty.

About the middle of May it became necessary for the War Depa ment to send a large number of Medical Reserve Corps officers foreign service, and since that date 198 reported at this school f instructions. The school assumed entire charge of them, gave the nstructions as to uniform, equipment, money affairs, etc.; vacciated them against typhoid fever, paratyphoid fevers A and B, and mallpox; made physical examinations of each; reported them ready or orders; furnished them with true copies of same; and gave them inal instructions regarding their departure and arrival at New York or duty on the other side of the Atlantic in compliance therewith. he handling of this work necessitated the establishment of what night be termed a "Foreign Service Bureau" and involved a great ncrease in the clerical work of the school. The system of handling hese officers has been very successful and will probably be continued s long as there is need for it.

An important function of the school is the printing of a vary large mount of material, not only for its own use, but for the office of the Surgeon General. Formerly an ordinary multigraph was used, but t was found that the amount of printing had increased to such an xtent that two or three of these machines with an equal number of perators would be required to meet the demands; accordingly an lectric-driven mimeograph was installed, and up to this time this nachine, with the multigraph, has proved adequate. During the year the total number of prints made was 652,163, including 18,045 heets of questions for the several examinations of applicants for ppointment in the Medical Corps, Medical Reserve Corps, Veterinary Corps, etc., which involved the folding of these sheets and the sealing of 20,604 envelopes.

During the year the school was charged with the arrangements for and the handling of the details in connection with furnishing medical officers assigned as special lectures at medical schools throughout the country with moving-picture films and lantern slides for use as llustrations for their talks. For this purpose five large moving-picture films illustrating the activities of the Medical Department in the field were sent to the school. Correspondence was kept up with the officers concerned and the itinerary was drawn up. The films and slides were sent by express to various points throughout the country, including New York, Philadelphia, Baltimore, St. Louis, Omaha, Columbus, Buffalo, Syracuse, and other cities. A considerable amount of correspondence was made necessary in the handling of this matter owing to the complications arising from the numerous and sometimes insistent demands from different officers for the use of these illustrations on the same date at widely separated localities. Every effort was made to satisfy all individuals concerned, keeping in mind the desirability of having these pictures shown in the large cities first.

ACTIVITIES, NOT DIRECTLY CONNECTED WITH THE SCHOOL, OF MEMBERS OF THE FACULTY.

Most of the members of the faculty have had many duties which were not strictly connected with their teaching positions assigned to them.

The commandant, Col. William H. Arthur, Medical Corps:

Col. Arthur was detailed as a member of the following boards: Army medical board, per War Department orders dated July 3, 1915; examination of retired officers of Medical Corps for fitness to transfer to active list, per War Department orders dated October 23, 1915;

Army retiring board, per War Department orders dated January 1916; medical officers for promotion, per War Department orde dated February 21, 1916; board of review, per War Departme orders dated May 18, 1916; preliminary examining board, per W Department orders dated May 26, 1916; examining board for pr motion, per War Department orders dated June 17, 1916; supply National Guard and Volunteers, per War Department orders date July 31, 1916; examining board for promotion, per War Departme orders dated August 23, 1916; retiring board, per War Departme orders dated August 31, 1916; selection of majors, captains, a first lieutenants for medical section of Officers' Reserve Corps, p War Department orders dated September 21, 1916; prelimina examining board, per War Department orders dated October 1 1916; examining board for promotion, per War Department orde dated March 2, 1917; and Army retiring board, per War Departme orders dated June 25, 1917.

The adjutant, Maj. Harold W. Jones, Medical Corps:

Maj. Jones was detailed as a member of the general motor boa working in conjunction with the truck standardization division of t American Association of Automobile Engineers and continued on th work during the year in connection with the Master Car Builders America and under the direction of Col. Chauncey B. Baker of t Quartermaster General's Office.

He also prepared the plans and specifications for the conversi of railway coaches and cars into hospital trains. This work was con pleted and a sample train constructed by the Pennsylvania Railroa Co., the plans finally receiving the approval of the Surgeon General Office.

He was detailed a member of the ambulance board and in this co nection made several trips to the Ford factory at Detroit and the Babcock Manufacturing Co.'s works in Watertown, N. Y. T work of the ambulance board has taken a great deal of the time of a members, as it involves the passing upon of every appliance used the transportation of the sick, and makes necessary investigations ambulance bodies, materials, automobile accessories, litter carrier the making of automobile tests, etc.

During October, 1916, Maj. Jones was detailed to go to Philade phia and prepare a site for the base hospital encampment in Frankl Park. This involved the setting up of more than 100 tents, 30 of the the large ward tents; the flooring of many of these, and the install tion of electric lights and water; the placing of more than 50 tons hospital supplies, beds and bedding, etc.; and the caring for a hospit personnel of 65. This entire work was accomplished in eight worki days with five sergeants, first class, and 30 privates from the Walt Reed General Hospital, and involved the expenditure of nearly $3,00 which was provided by the Red Cross. It is estimated that betwe 50,000 and 60,000 people saw the camp, which was the first mobiliz tion of a Red Cross base hospital in the history of the country.

In addition, the editing of the new Manual of Sanitary Drill Reg lations was turned over to Maj. Jones, and this work, under his dire tion, was very ably performed by First Lieut. Raymond W. Whittie Medical Reserve Corps., assistant professor of sanitary tactics.

Professor of Röntgenology, Maj. Philip W. Huntington, Medic Corps:

In addition to his regular duties, Maj. Huntington served as a ember of various examining boards; attended the conference of öntgenologists in New York City; and made various inspections X-ray equipments.

He also delivered a course of lectures on military medicine and rgery and camp sanitation at the Cornell Medical School with very ccessful results.

The following exhibits the course of instruction, names of the rofessors and assistant professors, the value given to each subject, nd the number of lectures or hours of instruction:

MILITARY SURGERY.

Col. William H. Arthur, Medical Corps, professor.

Value of subject: Maximum, 800; minimum, 640.

The course consisted of didactic lectures on gunshot, sword, aber, and bayonet wounds, illustrated by lantern slides, skiagraphs, nd pathological specimens. It embraced the mechanics of projec-les; the different kinds of projectiles used in modern warfare; their fects upon the various tissues and organs of the body at different anges; complications; the action of explosives on tissues; the treat-ent of gunshot wounds and their complications on the battle field nd at field and base hospitals; etiology, signs, symptoms, and treat-ent of traumatic aneurisms; varieties of wounds produced by cut-ng and puncturing weapons, and their treatment; wound infections, nd their treatment; and statistics of battles and campaigns. Twenty ine hours were devoted to instruction in this subject.

MEDICAL DEPARTMENT ADMINSITRATION.

Col. James D. Glennan, Medical Corps, professor; Col. William O. wen, Medical Corps, professor; Maj. Harold W. Jones, Medical orps, assistant professor.

Value of subject: Maximum, 800; minimum, 640.

The course included Army Regulations; the Manual for the Medical epartment; customs of the service; all general orders, circulars, and ulletins; and methods of administration, with all blank forms in rce.

Organization of the Army; territorial departments and tactical ivisions; organizations and duties of each corps and staff department; ilitary rank, command, and precedence; military discipline, honors, eremonies, official, semiofficial, and personal courtesies and customs.

Laws and regulations in regard to the appointment of cadets and fficers; promotion, retirement, and resignation of officers; death and urial of officers; personal and efficiency reports; method of obtaining ay, quarters, and all allowances of every kind under each staff de-artment with all blank forms used.

General recruiting service and methods of enlisting at stations, ith all circulars, reports and forms.

Descriptive lists, methods of muster and pay, drawing and issuing lothing and keeping accounts, discharges and final statements, all llowances of every kind under all departments and all blank forms sed.

All laws, regulations, orders, and methods concerning the Hospital orps and the Army Nurse Corps.

Regulations.—Visual and other physical standards for admission the United States Military Academy; commissions in line or staff the Army, promotion from the ranks, reenlistments, and promotio

Annual physical examination of officers and tests of field officer duties of medical officers on all boards of examination, promotio and retirement, with all examination forms.

Laws, rules, regulations, and methods governing vaccinatio typhoid prophylaxis, and venereal prophylaxis, with all blank forn used.

Military correspondence, form of letter writing, and methods recording and filing in use in the service.

Rations.—Methods of drawing rations or commutation therefc and use of the ration under all conditions; purchase; hospital fun its use, care, and returns; mess management.

Post administration.—Duties of medical officers, sanitary inspe tions and reports, sick call, morning reports, post hospital, and ge eral hospital administration.

Methods of keeping register of sick and wounded.—Reports, pape and methods connected therewith, and all forms.

Morbidity and mortality rates.

Property.—Allowances, methods of obtaining, caring for, usin accounting for, and disposing of property of all departments, and forms connected therewith.

Methods of purchasing necessary supplies and of having laund work done.

Forty-six hours devoted to instruction in this course.

MILITARY HYGIENE.

Lieut. Col. Champe C. McCulloch, jr., Medical Corps, professor.

Value of subject.—Maximum, 800; minimum, 640.

The course was unavoidably modified in many respects, owing the fact that three short sessions instead of one long one are bei held. Formerly the instruction was mainly by lectures, suppl mented by the quiz. This year on account of the necessity of crow ing so much material into a short time, it was found expedient to f back on the method of quizzing, including of course much in vidual comment and criticism of the textbook descriptions, based personal experience of the professor in Panama and various Arn camps. The students were encouraged to relate their own exp riences, such of them as had served abroad, for instance. The cour was based on Havard's Military Hygiene, which admirably filled t purpose. It is concise, correct, and up to date, and the style su that it makes easy and interesting reading. It is believed that t successful graduates are well grounded in the essentials of the subje and able to take up intelligently practical work in the field.

The following subjects were covered, in more or less detail, parti ular emphasis having been laid on matters pertaining to can hygiene:

Importance of the subject; morbidity and mortality in the milita service in peace and war; death rates; admission rates; noneffecti rates; rates of discharges for disability; influence of climate, rac age, and length of service; the examination of recruits.

Air, its composition and relative humidity; effects of altitude; tmospheric dust; ventilation; air contamination; modern theory f bad effects of ill ventilation; tests of air; amount of space required; ir purification; food; the soldiers' ration; clothing; qualities of texile fabrics; footwear.

Posts, barracks, and quarters; construction and care of same; itchens and mess rooms; the guardhouse; insects and vermin; creening; hygiene of the march; personal hygiene of the soldier; amp sites, their selection and care; tents; improvised and portable arracks.

Water supplies; quantity required; methods of examination of otable waters; purification of water (*a*) by heat, (*b*) by chemical neans, (*c*) by filtration; the Forbes-Waterhouse apparatus; the arnall filter; the Lyster water bag; domestic filters; sand filtraion; mechanical filtration; improvised filtration.

Methods for the disposal of camp excreta; the straddle trench; he pit latrine; the Havard box; post holes; the sanitary trough atrine; disposal of excreta by incineration; disposal of wastes, garage, and refuse; the company crematory; the rock-pile crematory; avatories; the disposal of manure.

Typhoid fever in the military service; history and importance of he subject; paratyphoid fever; the dysenteries; cholera; diarhea and other intestinal diseases; methods of spread; methods of ontrol; antityphoid vaccination in the Army.

Smallpox; vaccination; the other acute exanthemata; measles; umps; meningitis; diseases of the respiratory tract; tonsillitis, ronchitis, and pneumonia; chronic diseases in the Army; tubercuosis; heart disease; the hookworm; skin diseases.

Malaria in the Army; the prophylaxis of malaria; mosquito prohylaxis; screening; drainage; brush cutting; prophylactic adminstration of quinine; dengue; yellow fever; the Stegomyia mosuito; insecticides; typhus fever and its prevention; the effects of old and hot climates.

It is proposed to use as textbooks for the course beginning in July, 917, Vedder's Notes on Sanitation and Lelean's Sanitation in War, he latter containing concise and up-to-date descriptions of methods ow in use by the British. Havard will be assigned for reference and ollateral reading.

This course was completed in 23 hours' instruction.

SANITARY CHEMISTRY.

Lieut. Col. Carl R. Darnall, Medical Corps, professor; First Lieut. yrus B. Wood, Medical Corps, assistant professor.

Value of subject.—Maximum, 600; minimum, 480.

The course consisted entirely of laboratory work with such prelimnary talks by the professor as were necessary to explain the techical procedures. The work of the first section consisted of review f chemical qualitative analysis for metals and solids; quantitative olumetric analysis; qualitative and quantitative chemical examinaion of stomach contents, urine, water, and milk; examination of leaching powder samples for available chlorine, and the preparation f Dakin's solution.

The work of the second section was considerably shortened a condensed, but, with the exception of the urine analysis, all phases the work mentioned above were dealt with.

Ninety-six hours were devoted to instruction in this course.

OPHTHALMOLOGY.

Maj. Theodore C. Lyster, Medical Corps, professor; Capt. Ral H. Goldthwaite, Medical Corps, assistant professor.

Value of subject.—Maximum, 400; minimum, 320.

The course took up first a brief consideration of the optical pri ciples involved in the mechanism of the eye and optical instrumen This was followed by a study of refraction and of the more comm internal pathological conditions of the eye. This theoretical wo was supplemented by practical exercises on the artificial eye and each other to learn the various methods of ophthalmoscopic examin tion; by pictures thrown on screens with explanatory talks, illu trating the common retinal diseases; and by cases brought in fro the soldiers' home showing some of these conditions.

Forty-six hours were devoted to instruction in this course.

BACTERIOLOGY, PATHOLOGY, AND LABORATORY DIAGNOSIS.

Maj. Eugene R. Whitmore, Medical Corps, professor; Maj. Edwa B. Vedder, Medical Corps, Maj. Mathew A. Reasoner, Medical Cor and Capt. Corydon G. Snow, Medical Corps, assistant professors.

Value of subject.—Maximum, 900; minimum, 720.

The course was practical and included the study of the bacter diseases and the identification of the bacteria causing them; bacteri logical examinations of water and milk: spirochaetae; fungi; lectu and practical exercises on agglutinin and precipitins, and lysi lectures and practical work on the Wassermann reaction; lectu and exercises on ferments and anaphylaxis; preparation of b terial vaccines; clinical blood work.

The course in protozoology included the study of amoebae; tri omonas; lamblia, trypanosomes, malaria, etc.

The subject of helminthology was given by lectures, exami tion, and preparation of specimens.

The course in entomology consisted of the study, identificati and differentiation of the disease-carrying arthropods.

Three hours of the course was devoted to the study of venom animals, especially snakes, and venoms and antivenoms.

The shortening of the time devoted to the course made it nec sary to leave out considerable work, such as anaerobes, and the w in general pathology to which considerable time was devoted duri the longer course.

There were frequent practical exercises, in which students w required to work out unknowns arranged as nearly as possible l the work they may expect to meet in the service.

One hundred and thirty hours were devoted to instruction this course.

MILITARY MEDICINE AND TROPICAL MEDICINE.

Maj. Eugene R. Whitmore, Medical Corps, professor.

Value of subject.—Maximum, 800; minimum, 640.

The course in military and tropical medicine consisted of assigned eading in textbooks, and recitations, supplemented by talks where onsidered advisable. The course was given parallel with the course bacteriology, pathology, and laboratory diagnosis, so that when a isease-producing organism was being studied in one course, that isease was being studied in the other course. Special attention as paid to the gross and microscopic study of the tissues in each isease; and many of the sessions were held at the Army Medical useum where the material in the museum was studied.

The course included—

Conditions of military medicine.

Conditions of tropical medicine.

Climate and race: effects of diet, temperature, humidity, and ght, including heat: acclimatization; prophylaxis.

Traumatisms—poisons.

Enteric fever, with special reference to the method of handling hose diseases in the military service; yellow fever; dengue and llied fevers; bacillary dysentery; asiatic cholera; leprosy; plague; alta fever; infectious jaundice; yaws; relapsing fever; syphilis as andled in the Army; typhus fever; sprue; the mycoses, with special tress on sporotrichosis; pellagra; beriberi; amoebic dysentery and moebic liver abscess; trypanosomiasis; the leishmaniases; verruga eruviana and oroya fever; malaria and black water fever; ancyostomiasis; schistosomiasis; and filariasis.

By a method of exchange lectures with the hygienic laboratory f the Public Health Service, two or more lectures were given to he class by members of the staff of the hygienic laboratory. The ubjects of the lectures were typhus fever, plague, leprosy, and abies.

Dr. B. H. Ransom, chief of the division of zoology, Bureau of nimal Industry, Department of Agriculture, gave one lecture on hat was being done in the way of preserving meat, with special eference to trichiniasis.

Fifty-seven hours were devoted to these subjects.

ROENTGENOLOGY.

Maj. Philip W. Huntington, Medical Corps, professor.

Value of subject.—Maximum, 300; minimum, 240.

The course was, so far as possible, a practical one, and each stuent was given an opportunity to personally handle the machine, ake exposures by developing work, and read plates. The diagosis of pathological conditions of the bones and various other rgans of the body was taught and demonstrated according to the ost improved methods, both on the plate and the fluoroscopic creen. Much attention was given to the localization of foreign odies and the diagnosis of fractures. The X-ray treatment of kin and other pathological conditions was also taught.

Sixteen hours were devoted to instruction in this subject.

SANITARY TACTICS.

Maj. Harold W. Jones, Medical Corps, professor.

Value of subject.—Maximum, 500; minimum, 400.

Instruction in this subject embraced drill, the school of the soldi the school of the squad, and the school of the company. As far possible, individual students were allowed to drill platoons and co panies and take their places as guides, platoon leaders, and co pany commanders; indoor exercises were also given illustrating ma euvers by the use of wooden blocks; litter drill; lectures on t organization of the Army, the duties of medical officers in the fie the sanitary units; guard duty, etc.

Setting-up drill was also given daily at noon in the physical e amining room on the sixth floor.

Included in this course were two lectures on military law a courts-martial procedure.

Thirty-two hours were dovoted to instruction in this subject.

EQUITATION.

Capt. Charles G. Harvey, Cavalry, instructor.

This course consisted of instruction in nomenclature of the poi of the horse and parts of the equipment; method of mounting a dismounting: explanation of the military seat; kinds of "hand and proper method of holding reins; "aids" explained and dem strated; moving to front on straight line and halting; changes direction to right and to left; work on road at walk; alternate w and slow trot in hall and on road; suppling exercises; moving front, halting, changes of direction, abouts; movements by threes hall; increases and decreases of gaits; work at slow trot and tr slow trot without stirrups or reins; saddling and bridling; the gall

Eleven hours were devoted to instruction in this subject.

OPERATIVE SURGERY.

No instruction was given on this subject.

PSYCHIATRY.

No instruction was given on this subject and no special prof sors were designated during the 1916–17 session.

During the year a number of special lectures were given, includi one by Dr. Alexis Carrel on hospital service in France, one by Fred H. Albee on bone transplantation, one by Dr. Charles A. Pow on medical service in France, and several by nonmedical lecture Some of these lectures were illustrated with motion pictures a lantern slides. Col. Goodwin, of the British Royal Army Medi Corps, gave a series of very useful and instructive lectures coveri the work of the British officers under field conditions in the trenc and of the field ambulances, including descriptions of evacuations the wounded, gas attacks, etc. Col. Goodwin's lectures are now process of publication by the military surgeon.

In this connection mention is made of the fact that the lect room of the Army Medical School was used twice a week by officers the Quartermaster Department under the direction of the Quart aster General for lectures of instruction to officers of the Quarter-aster Reserve Corps.

ENLISTED PERSONNEL, MEDICAL DEPARTMENT.

The strength of the Medical Department detachment was changed s follows:

	July 1, 1916.	June 30, 1917.
aster hospital sergeants		7
ospital sergeants		
rgeants, first class	5	4
rgeants	3	4
rporals		1
ivates, first class	12	6
ivates		17
	20	39

The character of their services has been of a very high order and e duties and responsibilities of many of them have been such as are rdinarily intrusted only to commissioned officers.

CIVILIAN PERSONNEL.

At the opening of the twenty-first session there were on duty at e school four civilian clerks other than the chief clerk. The in-rease in the work made increases in the force necessary from time to me, until at the close of the period covered by this report there were mployed seven clerks in addition to the chief clerk. A private of e Medical Department who had been on duty as telephone operator as relieved and a civilian appointed on duty at the switchboard. n X-ray technician, a mechanic, a carpenter, and two civilian atchmen were also on duty at the school at the end of the year. heir work was performed in an altogether satisfactory manner and ey were called upon many times to work extra hours, which was variably cheerfully done. The work of the chief clerk, Mr. Ayers, as most exacting and his office was called upon to expand and take p new lines of work over and over again.

GRADUATION.

Very informal closing exercises for the first section were held, at hich the Surgeon General delivered a short address and presented e diplomas to the corps. Owing to the exigencies of the service, losing exercises for the second section were omitted.

Of the first section there were three honor graduates: Walcott enison, Calvin H. Goddard, and Edgar E. Hume.

Of the second section there were two honor graduates: Walter J. ristow and George S. Woodard.

Owing to the fact that the third section of the twenty-first session f the school will not close until after the period covered by this eport, no selections for award of either the Hoff memorial medal or he Sternberg medal were made.

At the time the building now occupied was taken over it seemed t be more than adequate for any contingency that might arise. A the present time, however, there seems to be good ground for th belief, which is justified by past experience, that a further extensio of the school might be necessary. A possibility for such an extensio exists in an adjoining building which is now for rent and which ca probably be altered to suit the requirements. Steps will probably b taken in the near future toward a recommendation for the rental c this building as preparation for any future demands which may b made upon the school.

RECOMMENDATIONS.

Toward the latter part of the period covered by this report is wa believed desirable that instruction in French conversation should b made a part of the curriculum of the school. No definite plans wer made, but it is expected that steps will be taken by the opening of th session for the next section, during the month of July, to have special instructor placed on duty here for the purpose of givin instruction in French conversation to the classes.

In September, 1916, the Army Medical School and laboratori were moved from the cramped and inconvenient building (72 Thirteenth Street), of which it occupied only the upper floors, to th much more commodious building (462 Louisiana Avenue) it no occupies. This building is very well adapted to the purpose and wi serve very well as a temporary makeshift until such time as a buil ing can be specially planned and erected for the purpose. The preser building, though a great improvement over the one vacated la September, is lacking in one of the features essential, in my opinio to the proper instruction of student officers—that is, grounds sufficient extent to make it possible to put the entire class in cam for part of the session, and to give facilities for drill and field exe cises. The recommendation is renewed that such a building erected as soon as funds are available, as near the city as practicabl in grounds extensive enough for the purposes indicated.

The present building, large as it is, is overcrowded and its capaci taxed by activities not directly connected with the school, especial the great number of physical examinations mentioned in the repo (pp. 3 and 4). The three-story and attic building to the east of th building can be rented for $200 a month, connected by doors on th first, second, and third floors of this building, and would great facilitate the work. Steps have been taken to get authority to ad the next-door building to the school, to be used, first floor for offic second floor for additional room for clerks and records, third flo for physical examining rooms, the present room used for that pu- pose being very much needed for a typhoid vaccine packing roo the present packing room being overcrowded.

ARTICLES BY MEDICAL OFFICERS.

Note.—It is desired to include in this list all articles written by medical officers uring the fiscal year. It is therefore requested that the title and place of publica-on of articles written by medical officers be sent to the Surgeon General.

Articles by medical officers of the Army, July 1, 1916, to June 30, 1917.

Author.	Articles.	Disposition.
llen, Lieut. Col. John H	The administrative technique of antityphoid inoculations.	Military Surgeon, June, 1917.
llen, Maj. W. H	The ambulance company	New York Medical Journal, June, 1917.
rthur, Col. William H	The advantages of military training for young men.	Military Surgeon, January, 1917.
Do	Carrel's method of wound sterilization.	Military Surgeon, May, 1917.
sh, First Lieut. J. Earle	A note on the pathological effects of atmospheres rich in oxygen.	American Journal of Laboratory and Clinical Medicine, February, 1917.
shford, Col. B. K	The etiology of sprue	American Journal of the Medical Sciences, August, 1917.
shford, Maj. Mahlon	The American doctor and preparedness.	New York Medical Journal, Apr. 14, 1917.
Do	The most practical plan for the organization, training, and utilization of the medical officers of the Medical Officers' Reserve Corps of the United States Army and Navy, and of the medical officers of the Officers' Reserve Corps of the United States Army, in peace and war—the Wellcome first prize essay.	Military Surgeon, February, 1917.
Do	Proposed motor-ambulance company.	Military Surgeon, September and October, 1916.
aketel, Maj. H. S., Medical Reserve Corps.	The necessity of analyzing drugs for Army use.	Pacific Medical Journal, vol. 59, 1916 (pp. 658–662); also Medical Times, New York, vol. 44, 1916 (p. 330).
ernheim, Capt. J. R., Dental Corps.	Oral hygiene in the Army	Read at the meeting of the National Dental Association, Louisville, Ky., July 25–28, 1916. Journal of the National Dental Association, May, 1917.
oak, Capt. S. D., Dental Corps.	Militia dental surgeons	The Bulletin of the Association of Military Dental Surgeons of the United States.
ushnell, Col. G. E	The diagnosis of tuberculosis in the military service.	Military Surgeon, June, 1917.
hamberlain, Col. W. P	Care of troops on the Mexican border.	Journal of the American Medical Association, Nov. 25, 1916.
Do	Demography in so far as it relates to the vital statistics of armies.	Military Surgeon, December, 1916, January, February, and March, 1917.
Do	Military medicine	Boston Medical and Surgical Journal, April, 1917.
hurch, Col. James R	Notes on the organization of the French sanitary service.	Military Surgeon, May, 1917.
onnor, Lieut. Col. C. H	The special physical examination of aviators for the United States Army.	Military Surgeon, January, 1917.
raig, Lieut. Col. Charles F	The classification of the parasitic amebæ of man.	Journal of Medical Research, January, 1917.
Do	The complement fixation test in the diagnosis of tuberculosis.	Journal of the American Medical Association, Mar. 10, 1917.
Do	The occurrence of entamebic dysentery in the troops serving in the El Paso district from July, 1916, to December, 1916.	Military Surgeon, March and April, 1917.
Do	The practical application of the Wassermann test in the diagnosis and as a control of the treatment of syphilis.	American Journal of Syphilis, January, 1917.

Articles by medical officers of the Army, July 1, 1916, to June 30, 1917—Continued.

Author.	Articles.	Disposition.
Culler, Maj. R. M.	Syphilis of the stomach—a case of hourglass contraction.	Journal of the American Medic Association, Dec. 2, 1916.
Davidson, Lieut. Col. W. T.	Bone autogenous graft in the treatment of fracture of the greater tuberosity of the humerus.	Annals of Surgery, Philadelphi Pa., July, 1917.
Do	Rider's tendon	
De Lanney, First Lieut. E. L., Medical Reserve Corps.	Treatment of amebic dysentery with the Chaparro Amargosa.	Awaiting publication.
Ebert, Col. Rudolph G.	Some medical problems of over-seas garrisons.	Military Surgeon, August, 1916.
Fitch, Capt. W. E., Medical Reserve Corps.	Work on foods	Published in booklet form.
Do	Rations for boys' military training camps.	Military Surgeon, May, 1917.
Ford, Col. J. H.	Elements of field hygiene and sanitation.	Published in booklet form.
Do	The sanitary service of the Austro-Hungarian Army in campaign.	Military Surgeon, June, 1917.
Foster, Maj. George B., jr.	Hookworm infection as a medico-military consideration (collaborated with First Lieut. Charles G. Sinclair).	Journal of the American Medical A sociation, vol. 69, 1917, 431–434.
Hall, Lieut. Horace C., Medical Reserve Corps.	Typhus fever	Military Surgeon, November, 1916.
Johnson, Maj. H. H.	The toxic effects of emetine hydrochloride (collaborated with First Lieut. John A. Murphy, Medical Reserve Corps).	Military Surgeon, January, 1917.
Do	The trailer ambulance	Military Surgeon, July, 1916.
Jones, Maj. E. C.	Military dogs	Military Surgeon, April, 1917.
Jones, Lieut. Col. Percy L.	Motor transportation for sick and wounded.	Awaiting publication.
Do	A railway hospital train de luxe	Military Surgeon, October, 1916.
King, Maj. Edgar	The use of habit-forming drugs by enlisted men.	Military Surgeon, September a October, 1916.
La Garde, Col. L. A., retired.	Civilian physicians and national preparedness.	Military Surgeon, September, 1916.
Do	The surgeon and military preparedness.	Military Surgeon, May, 1917.
Lewis, Col. W. F.	Recent developments in camp sanitation (collaborated with Lieut. Col. R. B. Miller).	Do.
Loew, Lieut. Harry K., Medical Reserve Corps.	A summary of medico-military facts developed by experiences on European battle fronts.	New York Medical Journal, July 1917.
Loving, Lieut. Col. R. C.	The medical officer	Journal of the New York Medic Association, vol. 68, 1917.
Lull, Maj. Geo. F.	Report of 2 fatal cases of paratyphoid fever A.	Awaiting publication.
Lyster, Lieut. Col. William J. L.	Present status of artificially treated drinking water in the field.	Military Surgeon, April, 1917.
McCulloch, Col. C. C.	The scientific and administrative achievement of the Medical Corps of the United States Army.	The Scientific Monthly, May, 1917.
Miller, Lieut. Col. R. C.	Recent developments in camp sanitation (collaborated with Lieut. Col. W. F. Lewis).	Military Surgeon, May, 1917.
Mitchell, Maj. L.	Double femoral hernia in a male	Journal of the American Medical sociation, Feb. 24, 1917.
Mudd, Maj. Leo. C.	Some experiences with venereal diseases at Schofield Barracks.	Read before the United States M ical Society of Hawaii, Feb. 5, 19 Military Surgeon, December, 19
Munson, Col. E. L.	The effect of marching on the rates for nonefficiency of newly raised troops.	Military Surgeon, February, 1917.
Do	An epidemiological study of measles outbreak at Camp Wilson, Tex., 1916.	Military Surgeon, June, July, Augu and September, 1917.
Murphy, Capt. John A., Medical Reserve Corps.	The toxic effects of emetine hydrochloride (collaborated with Maj. H. H. Johnson).	Military Surgeon, January, 1917.
Nichols, Maj. Henry J.	Alkaline treatment of early gall-bladder carriers, with observations on their detection by aid of the duodenal tube.	Journal of the American Medi Association, Mar. 31, 1917.
Do	The lobar pneumonia problem in the Army from the viewpoint of the recent differentiation of types of pneumococci.	Military Surgeon, August, 1917.
Do	The pathogenesis of gall-bladder infections in typhoid, cholera, and dysentery.	Journal of Experimental Medici November, 1916.

Articles by medical officers of the Army, July 1, 1916, to June 30, 1917—Continued.

Author.	Articles.	Disposition.
ble, Lieut. Col. Robert E.	The Medical Corps of the Army as a career.	Journal of the American Medical Association, Mar. 31, 1917.
Connor, First Lieut. C. M., jr.	A record march by sanitary troops.	Military Surgeon, November, 1916.
iver, Capt. Robert T., Dental Corps.	Dental surgeons in the theater of operations.	The Bulletin (official organ of the Association of Military Dental Surgeons of the United States).
ge, Col. Henry	Civil physicians and national defense.	Military Surgeon, April, 1917.
Do	The medical profession and preparedness.	Address delivered before preparedness meeting at Montclair, N. J., Dec. 18, 1916, held by the Medical Association of New Jersey. (Awaiting publication.)
Do	The Medical Reserve Corps and paratyphoid at Camp Whitman.	Awaiting publication.
erson, Lieut. Col. R. H.	Latrines and kitchen incinerators	Military Surgeon, August, 1917.
pes, Lieut. Col. H. F.	The defense act of 1916	Awaiting publication.
ialls, Maj. Guy L.	Some observations on acute cerebrospinal syphilis and its treatment.	Do.
aymond, Col. Henry I.	Duties of medical supply officers and their methods (collaborated with Col. Edwin P. Wolfe).	Military Surgeon, July, August, September, and October, 1916.
easoner, Maj. M. A.	The effect of soap upon treponema pallidum.	Journal of the American Medical Association, Mar. 31, 1917.
Do	Experimental syphilis produced through local applications to mucous membrane.	Journal of the American Medical Association, Apr. 2, 1917.
Do	Some general information concerning the diagnosis and treatment of syphilis.	Military Surgeon, September, 1916.
eno, Lieut. Col. Wm. W.	Laying out a field hospital	Military Surgeon, August, 1916.
Do	Pitching and striking a field hospital in record time.	Military Surgeon, November, 1916.
hoads, Lieut. Col. Thomas L.	The influence of the Wassermann test on surgery.	Journal of Syphilis, St. Louis, April, 1917.
nclair, First Lieut. Charles G.	Hookworm infection as a medico-military consideration (collaborated with Capt. George B. Foster, jr.).	Journal of the American Medical Association, vol. 69, 1917, 431–434.
albott, Lieut. Col. E. M.	Observations on the eye, ear, nose, and throat work at Base Hospital No. 2, Fort Bliss, Tex., from July, 1916, to February, 1917.	Awaiting publication.
hompson, First Lieut. Loyd, Medical Reserve Corps.	Complement fixation in syphilis, with the preliminary report of a new technic.	American Journal of Syphilis, July, 1917.
edder, Lieut. Col. Edward B.	Diet in the dysenteries	To be published in book "A System of Foods and Feeding in Health and Disease."
Do	The emergency ration	Awaiting publication.
Do	The known and the unknown with regard to the etiology and prevention of beriberi.	Military Surgeon, October, 1916.
Do	Sanitary notes	Published as one of a series of handbooks.
hitham, Maj. Jay D.	Paratyphoid infections	Read before the United States Medical Society at Honolulu, July, 1916; Military Surgeon, November, 1916.
ilde, Maj. A. G.	Army medical records	Military Surgeon, December, 1916.
illcox, Col. Chas.	Physical examination of large bodies of men.	Military Surgeon, April, 1917.
illiamson, Maj. L. P.	The Medical Corps of the Army as a career.	Medical Record, Dec. 23, 1916.
olfe, Col. Edwin P.	Duties of medical supply officers and their methods (collaborated with Col. Henry I. Raymond).	Military Surgeon, July, August, September, and October, 1916.
oodbury, Lieut. Col. Frank T.	Recruiting for the military service.	Military Surgeon, January and February, 1917.
oods, Lieut. Alan C., Medical Reserve Corps.	Work on complement fixation with partial antigens.	Journal of Immunology, April, 1917.

Special articles by medical officers of the Army detailed as medicomilitary observ abroad, from the beginning of the European war to and including June 30, 1917.

Officer.	Subject.
Boyer, Maj. P. L.	Report on the French and English hospital service.
Bradley, Lieut. Col. A. E.	Report on some vaccines and sera used by the British.
Do	British marmite ration for prevention of beriberi.
Do	Notes on sanitation in the British Army.
Do	Royal Army Medical College system of lectures—gas masks.
Do	Heart Hospital at Hampstead, England.
Do	Report on purification of ablution waste water in the British Army.
Do	Report on Dartford War Hospital for German prisoners of war in Engla
Do	Report on treatment of cloth by antiseptics in relation to wound infecti
Do	Report on treatment of burns by ambrine and substitutes.
Do	The so-called delineation of structures—a delineation of X-ray princip
Do	Litters for trench warfare—the "Rogers" stretcher.
Do	Organization of the British Army medical service.
Do	Salvage from camp wastes.
Do	Hospital ships in the British service.
Do	Water purification at the British front.
Do	Physical qualifications which determine classification categories in British soldier.
Do	"Flavine," the ideal antiseptic.
Do	Recruit examination and physical requirements.
Do	Motor surgical operating theater.
Do	British medical service.
Do	"Flavine, service type British motor ambulance and theater trailer- gical, operating."
Do	Supplementary report on flavine.
Do	Standard motor ambulance, British service.
Do	Confidential report on the British medical service.
Church, Maj. J. R.	Incidence of contagious diseases before and during the present war.
Do	The evacuation of the wounded from the firing line to the rear.
Do	Report of a visit to temporary hospital No. 21, at Rand Royal, Compeig France (Carrel's Hospital).
Do	Cellophane (sample to be added to his report on Carrel's Hospital).
Do	Translation of article, "Le Genie Civil," relative to "baths" in the fi
Do	Translation of article in La Nature on sanitary train in operation France; also copy of report on "Sanitary train equipped by Ameri donation" and turned over to French Government.
Do	Notes on the operation of automobiles used in transporting the wound
Do	Movable disinfecting apparatus employed by the French.
Do	Report on the Ford automobile.
Do	Report on automobile radiologic units as employed in the French Ar
Do	Report on trip to Dunquerque and La Panne.
Do	Plans of French hospital to be erected near Paris for military use.
Do	Report on discussion of Wright's isotonic and hypertonic salt solution the treatment of wounds.
Do	Report on construction of military hospitals.
Do	Report on visit to Hospital Complementaire V. R. No. 76, at Ris Oran Seine et Oise, Dr. Jos. Blake, medical chief.
Do	Report on incorporation of a disinfectant in cloth to prevent wound i tion.
Do	Volunteer sanitary units with the French Army—French regulat concerning the enrollment of volunteer automobile sanitary units.
Do	A splint for the transport of fractures of the lower extremity.
Do	Influenza among the wounded; notes on the French sanitary service f the first line to the evacuation hospital.
Do	Series of Roentgenograms illustrating various types of fractures and lodgment of projectiles.
Do	Destruction of flies and disinfectant of corpses in the fighting zone.
Do	X rays in the sterilization of wounds.
Do	Plans of a French military hospital.
Do	Report on working of a French ambulance with some statistics.
Do	Report on temporary wooden barracks.
Do	Sanitary cart for battalion use, French Army.
Do	Report on litter transportation in the French Army.
Do	Mineral from which asphyxiating gases are said to be made (specime mineral).
Do	Report relative to purchase of telephonic localizers.
Do	Report on paraffin treatment of burns—method of Dr. Barthe de S fort.
Do	Report on steel helmets in use in the French Army.
Do	Report on vehicles for dental service in the French Army.
Do	Report on treatment of wounds according to method of Dr. Mencier
Do	Report on dental surgery—American ambulance in France.
Do	Notes on the organization and operation of the French Red Cross Soc
Do	Report on the Simpson rays.
Do	Organization of the French sanitary service and operation of sani service in campaign.
Do	Re motor surgical operating theater.
Church, Maj. J. R., and Lyster, Maj. W. J. L.	Sanitary personnel in the hands of the enemy—difficulties encounter the application of the rules laid down in the International Red Convention.

ecial articles by medical officers of the Army detailed as medicomilitary observers abroad, from the beginning of the European war to and including June 30, 1917—Continued.

Officer.	Subject.
ord, Maj. J. H.	Medical department of the Austro-Hungarian Army.
Do	Bacteriological field laboratory of the Austro-Hungarian Army.
Do	Bath and disinfection trains of the Austro-Hungarian Army.
Do	Field laundries of the Austro-Hungarian Army.
Do	Histories to accompany Roentgen photographs.
ord, Maj. C. S	Hospital and ambulance trains and railway sanitary supply units of the Austro-Hungarian Army.
Do	Report of observations in Austria.
Do	Recent vaccination circulars, French Army.
Do	Report on motor ambulances and trailers—experiences in French and British services.
Do	Report on a 600-pound repair wagon for British Red Cross ambulance company.
Do	Report on treatment of streptococcus septicemia by intravenous injections of peptone.
Do	Report on Carrel's method and its results in the treatment of wounds of war.
Do	The principles of the technique of the sterilization of wounds by Alexis Carrel.
ord, Maj. C. S., and Lyster, Maj. W. J. L.	Report on device for folding seats and facilitating loading of stretchers in ambulances.
Do	Plans and descriptions of a British ambulance train which they inspected.
Do	Report on the Royal Army Medical Corps training center and depot at Aldershot.
Do	Description and plans of a British ambulance train.
Do	Report on convalescent hospitals and command depots in the British Army.
Do	Report on shell protective helmets and body shields.
Do	Report on the use of atropine in diagnosing fevers of the typhoid group.
Do	Report on a motor surgical operating theater used on the western front.
Do	Report on motor soup kitchens seen at British western front.
Do	Report on Marrais's treatment of thrombosis.
Do	Report on plans of buildings at Donnington Hall detention camp.
Do	Report on protection against poisonous and lachrymatory gases in the British Army.
Do	Disinfection of gas masks.
Do	Political crisis in the Canadian medical department.
Do	Oral surgery and special hospitals.
yster, Maj. W. J. L	British Red Cross Society organization.
Do	Personal letter to Maj. Noble in replacing of seats in an ambulance.
Do	Report on plant for producing typhoid vaccine for the British Army.
Do	Report on hospital ships in use by the British Army.
Do	Portions of a Zeppelin blown up in England for deposit in Army Medical Museum.
Do	"Furley window" for barracks huts and hospitals.
Do	Report on improved "Furley-fieldhouse" portable barracks hospital.
Do	Regulations in re admission to Royal Army Medical Corps (British).
Do	Use of iodine in first-aid dressings.
Do	Treatment of dysentery.
Do	Percentage of bed capacity to troops in the field.
Do	Notes on Italian Army Medical Department.
Do	Mosquito veil used by British troops at Saloniki.
Do	German attacks on British hospital ships.
Do	Soldier's heart.
Do	System of evacuation of sick and Second Italian Army.
Do	Plans for hospital ship lift.
Do	Cleansing appliances in the field.
Do	The frequency of venereal diseases in the British Army.
Do	Military pensions and proposed legislation for same in England.
Do	Typhoid and paratyphoid rates in the British Army.
Do	Appliances used in the Italian Army.
adhams, Maj. S. H	Mobile sanitary units in the French Army.
Do	Tour of duty at the front with the French Army.

SANITARY TROOPS—NATIONAL GUARD.

Due to the influence of the European war there has been an unrecedented activity during the past year in both the organization nd training of the sanitary units and detachments of the National uard.

Since the date of the last report, 21 field hospitals and 21 ambuance companies have been organized and extended Federal recogition. In addition 93 sanitary detachments have been organized for line organizations, making a total of 59 field hospitals, 47 ambulance companies, and 267 sanitary detachments, which were drafte into the Federal service August 5, 1917.

The following table shows the existing sanitary units in the Federa service and the number required for the 16 National Guard divisions:

Division.	States comprising National Guard Divisions.	Organized.	Shortage.
Fifth	Maine, none; New Hampshire, 1 F. H.; Vermont, none; Massachusetts, 2 F. H. and 2 A. C.; Connecticut, 1 F. H. and 1 A. C.; Rhode Island, 1 A. C.	4 F. H. 4 A. C.	None.
Sixth	New York, 4 F. H. and 4 A. C.	4 F. H. 4 A. C.	Do.
Seventh	Pennsylvania, 4 F. H. and 4 A. C.	4 F. H. 4 A. C.	Do.
Eighth	New Jersey, 1 F. H. and 1 A. C.; Delaware, none; Maryland, 1 F. H. and 1 A. C.; District of Columbia, 1 F. H.; Virginia, 1 F. H. and 1 A. C.	4 F. H. 3 A. C.	1 A. C. Delaware.
Ninth	North Carolina, 1 F. H. and 1 A. C.; South Carolina, 1 F. H.; Tennessee, 1 F. H. and 1 A. C.	3 F. H. 2 A. C.	1 F. H. Tenn., 2 A. C. (1 Tenn 1 S. Car.).
Tenth	Alabama, 1 F. H. and 1 A. C.; Georgia, 1 F. H.; Florida, 1 F. H.	3 F. H. 1 A. C.	1 F. H. (Ga.). 3 A. C.
Eleventh	Michigan, 1 F. H. and 2 A. C.; Wisconsin, 2 F. H. and 2 A. C.	3 F. H. 4 A. C.	1 F. H. (Mich.)
Twelfth	Illinois, 4 F. H. and 4 A. C.	4 F. H. 4 A. C.	None.
Thirteenth	Minnesota, 1 F. H. and 1 A. C.; North Dakota, 1 F. H.; South Dakota, none; Iowa, 2 F. H. and 2 A. C.; Nebraska, 1 F. H.	5 F. H*. 3 A. C.	1 A. C. (Nebr.)
Seventeenth	Kentucky, 2 F. H. and 1 A. C.; Indiana, 2 F. H. and 3 A. C.	4 F. H. 4 A. C.	None.
Eighteenth	Arkansas, 1 F. H. and 1 A. C.; Mississippi, 1 F. H.; Louisiana, 1 F. H.	3 F. H. 1 A. C.	1 F. H. (Miss.), 3 A. C. Miss., 1 La.).
Nineteenth	California, 2 F. H. and 2 A. C.; Utah, 1 F. H.; Arizona, none; Colorado, 1 F. H.; New Mexico, none; Nevada, none.	4 F. H. 2 A. C.	2 A. C. (1 Utah, 1 Colo.).
Twentieth	Washington, 1 F. H.; Oregon, 1 F. H.; Montana, none; Idaho, 1 F. H.; Wyoming, none.	3 F. H. No A. C.	1 F. H. (Wyo.), 4 A. C. Wash., 1 Oreg., Idaho, 1 Wyo.).
	Total	59 F. H. 47 A. C.	5 F. H. 17 A. C.
	Total units	106	22

* F. H. in excess in this division.

The commissioned personnel of the medical department, Nationa Guard, on August 5, 1917, whose eligibility under the act of June 1916, was passed upon by this bureau, and were recognized, consiste as follows: 1,407 medical officers, 53 reserve medical officers, 30 dentists, and 81 veterinarians, a total of 1,848 officers. The reserv officers were not drafted into the Federal service, as they were no included in the call of the President. The medical officers of th State staff corps were not included in the call. However, a numbe of these were drafted later to fill vacancies, and for the division staff. The States of Arkansas and Texas had an excess of eligibl dental surgeons, who were not drafted into the Federal servic Exclusive of the medical officers of the States staff corps and reserv there was a deficiency of approximately 60 officers for the Nationa Guard drafted into the Federal service. If the National Guar reserve medical officers and the remainder belonging to the Stat staff corps are drafted into the Federal service, the medical department of the National Guard will have its full quota required by Table

Organization, 1917, for the National Guard drafted into the Federal rvice.

The enlisted personnel of the medical department had, on August the maximum strength authorized by Tables of Organization, 1917, e approximate strength being 19,000.

A considerable number of medical officers, whose efficiency records the Texas border were reported as excellent, severed their con-ection with the National Guard: some for personal reasons, others accept commissions in the Officers Reserve Corps of the Army, hich gave them better opportunity for advancement. Con-quently, about 50 per cent of the present commissioned personnel ve had no prior military service.

INSTRUCTION AND TRAINING.

The few officers and noncommissioned officers of the Regular edical Corps, assigned to duty with the medical department of e National Guard, were used for various duties, so that very little struction was given the sanitary troops by the Regular Establish-ent. A uniform and progressive course of armory instruction was escribed for the sanitary units and detachments, which was for e most part conscientiously followed by the responsible National uard medical officers. Schools for officers and noncommissioned ficers were established and a special course of instruction was escribed. The medical officers correspondence course had to be andoned for lack of inspector-instructors to supervise it.

EXAMINATIONS UNDER THE ACT OF JUNE 3, 1916.

Due to the nonavailability of regular medical officers to supervise d act as members of boards, this bureau was unable to convene ards of medical officers to examine persons appointed and pro-oted in the medical department, National Guard, as required under e act of June 3, 1916. One board was convened for this purpose in e State of Connecticut, where there was a retired medical officer on ty. Upon recommendation of this bureau, these examinations ere turned over to department commanders. They, however, were ly able to determine the qualifications of a few applicants for pointment and promotion in the medical department. The igibility of all appointments was passed upon by this bureau, and pointments authorized, subject to future examinations, which has sulted in securing a high grade of medical officers.

EQUIPMENT.

The supply departments have been unable to furnish full equip-ent or supplies to the National Guard since January 1, 1917, so that newly organized field hospitals and 22 ambulance companies were t equipped August 5, 1917. Forty field hospitals and 25 ambu-nce companies were supposed to be fully equipped, and had imal-drawn transportation, but not the animals.

Tables of Organization, 1917, require that half of the units of the nitary train have motor-drawn transportation. From funds propriated this bureau, the Surgeon General's Office placed contracts for 265 motor ambulances and 105 motorcycles to equip 2 field hospitals and 23 ambulance companies with motor equipmen The total cost of this equipment, some of which has been delivere amounted to $488,300. The furnishing of motor trucks and cars f these units pertains to the Quartermaster Corps. They were unab to furnish this equipment prior to the draft of the National Guard.

Early in 1917, $94,500 was allotted to the Ordnance Departme from funds appropriated this bureau for furnishing 1,200 officer belts (par. 864, M. M. D.), and 6,600 enlisted men's belts (par. 86 M. M. D), including the necessary pouches and tags, and ration bag These articles were intended for equipping the commissioned a enlisted personnel, medical department, National Guard, to repla old and obsolete equipment, and delivery was to be made in Jul 1917. None were issued to the National Guard prior to the draft.

Indiana Ambulance Company No. 3, Michigan Ambulance Co pany No. 2, and Wisconsin Ambulance Company No. 1, were fu nished complete standard motor equipment by private person approved by the War Department.

MEDICAL DEPARTMENT TRAINING CAMP.

With a view to providing an adequate number of trained medic officers of the National Guard who could take up the work of traini and instructing the sanitary personnel and line troops at conce tration camps, which could not be furnished by the Regular esta lishment, 257 medical officers and 762 enlisted men of the Natio Guard from among those not in the Federal service, and who we not on the border, were called into the Federal Service in June, a sent to the medical department training camps at Fort Oglethor Ga., Fort Riley, Kans., and Fort Benjamin Harrison, Ind., for three months course of intensive training. In addition, one fi hospital and one ambulane company, National Guard, were request to be sent to each of these camps for the purpose of aiding in givi instruction to the student officers and enlisted men in attendan none from the Regular establishment being available for this purpo Those selected were Field Hospital No. 1 and Ambulance Compa No. 1, Tennessee, to Fort Oglethorpe, Ga.; Field Hospital No. 1 a Ambulance Company No. 1, Indiana, to Fort Benjamin Harris Ind.; and Field Hospital No. 1 and Ambulance Company No. Missouri, to Fort Riley, Kans. Four medical officers, Natio Guard, were requested called into Federal service, for the purpose instructors at medical department training camps.

MEDICAL EXAMINATIONS.

Prior to the act of June 3, 1916, the War Department had mandatory authority concerning the physical requirements of personnel of the Organized Militia not in Federal service, althou all but four States claimed to have adopted the standard of physi examination prescribed for the Regular Army. These requireme were not rigidly enforced by the States, as evidenced by the la number found physically disqualified upon muster into the Fed service, under the calls of May 9 and June 18, 1916. The mobili tion report, Organized Militia, 1916, shows that from data availa iere were 23,721 rejections out of a total of 128,517 persons exam- ed, making an average of 18.45 per cent rejected on account of hysical defects.

It might be interesting to compare the above with the mobiliza- on of the National Guard in 1917. From the data available presenting 39 States, there were 11,762 rejections out of 121,721 amined, making an average of 9.9 per cent rejected on account of hysical disabilities.

CAUSES OF REJECTION.

The following is a tabulation of the causes of rejection on account physical disabilities:

Cause.	1916—5 States, 35,824 troops examined.	1917—39 States, 121,721 troops examined.
nereal diseases	287	1,026
or physique, under height and weight	1,731	1,932
efective vision and diseases of the eyes	741	1,503
eformity of feet and flatfoot	414	1,359
nputations and deformities	195	612
oiter	57	67
efective mentality	40	135
iseases of the nose and throat	24	108
eins, arteries, and varicosities	80	158
ydrocele and varicocele	89	308
ernia	396	1,032
efective dentition	249	629
efective hearing	96	401
verweight and obesity	65	35
ervous diseases	19	113
emorrhoids	43	144
eart and lungs	724	1,291
iteracy	49	10
in diseases	26	7
coholism and drug habits	12	62
nclassified	189	820
Total	5,526	11,762

CONSTRUCTION AND REPAIR OF HOSPITALS.

During the past year plans and specifications were prepared for nlarging and improving the hospital buildings at various military osts and general hospitals.

Letterman General Hospital, San Francisco, Cal.—Contracts were ntered into for additional concrete wards, and a second story on the acteriological laboratory. A new concrete ward, an addition to the urses' dormitory, and an addition to the department laboratory were ompleted for this general hospital.

Fort Bliss, Tex.—A rear annex containing kitchen and mess room, nd dormitories for the Hospital Corps was completed, and the base ospital at this post, used in caring for the sick from the Mexican order, was enlarged and improved.

Fort Sam Houston, Tex.—The building to house a central heating lant, a department laboratory, dormitories for the Hospital Corps, nd a surgical pavilion were completed so far as contracted for. A ew kitchen addition was added to the hospital, and the mess room as enlarged. The porches were screened, and various improvements were added for the purpose of placing this hospital in the mo sanitary condition.

Temporary buildings for hospital purposes were also provided fro the appropriation for construction and repair of hospitals at numerou places along the Mexican border for the care of the sick, and $500,0 was used for these temporary structures.

An allotment of $50,000 was made from the appropriation f construction and repair of hospitals for use in the Philippine Depar ment, and $1,000 was allotted from the appropriation for quarte for hospital stewards, for quarters for noncommissioned officers the Philippine Islands.

In addition to the foregoing, all general hospitals in connecti with the Army and the hospitals at military posts were improved kept in proper repair so far as funds would permit. Tempora hospitals for standing camps and cantonments were also provid in a number of cases.

The porches of the Army and Navy general hospital have be inclosed with glazed sash, thus materially increasing the bed capacit and no additional new construction is thought to be necessary present.

General Hospital, Fort Bayard, N. Mex.—Funds to build an office infirmary for this general hospital, $60,000, have been authoriz by Congress, and the following additional buildings are necessar One infirmary for enlisted men, estimated to cost $100,000; o addition for the officers' dormitory, estimated to cost $80,000; o new ward, estimated to cost $75,000; one ward for ambulant patien estimated to cost $60,000; also one amusement hall and librar estimated to cost $30,000; and funds for these buildings have be included in the annual estimate for the fiscal year 1918.

Letterman General Hospital, San Francisco, Cal.—The wards this general hospital, with the exception of a few which have be replaced with reinforced concrete buildings, are constructed of woo have been in use for quite a number of years, and are dangerous case of fire. These wooden wards are being replaced gradually fro time to time with concrete buildings, and $75,000 is included in t annual estimate for 1919, to be used for this purpose.

Walter Reed General Hospital, Takoma Park, D. C.—This is o of the most important general hospitals and is used for the treatme of officers, retired officers, patients from Washington Barracks, e listed men, special cases, observation of patients under considerati for discharge on account of disability, and for the education students attending the Army Medical School. Funds are includ in the appropriation made for the current fiscal year, $90,000, place additional stories on Wards A and B. When these improv- ments are added, much needed room will be secured, but furth expansion will be necessary in the near future. An item of $350,0 is included in the annual estimate for 1919, to build an Army medi school on this reservation, thus placing the hospital and the sch in close proximity and saving a large sum annually paid for a rent building.

New modern hospitals are required for several military posts replace dilapidated wooden structures. A new hospital is need for Fort Michie, N. Y., and $40,000 is included in the estimate

19 to be used for this purpose. A new hospital is also needed for ›rt Dade, Fla., and $45,000 is included in the estimate for 1919, to ver the cost of the same. In addition, an item of $40,000 is included the estimate for 1919 to provide an isolation ward, a prison ward, ıd a morgue for the hospital at Fort Mills in the Philippine Islands.

Owing to the necessity for hospitals to care for sick and wounded casioned by the present war with Germany, large sums will be quired, and the annual estimate for the fiscal year 1919 calls for 5,000,000 which, under ordinary circumstances, would be a large m, but these funds are not only for general hospitals and hospitals military posts, but they are also to provide for the alteration of ırmanent buildings at posts for use as hospitals, construction and pair of temporary hospital buildings at permanent posts, construc- ›n and repair of temporary general hospitals, rental of grounds ıd rental and alteration of buildings for use for hospital purposes the District of Columbia and elsewhere, including necessary tempo- ry quarters for hospital personnel, outbuildings, heating and laun- y apparatus, plumbing, water and sewers, and roads and walks r the same.

Quarters for noncommissioned officers of the Medical Department.— ving to the limited appropriation for these buildings, it was not ssible to erect additional quarters, and various necessary additions d improvements had to be disallowed. A number of large military sts are in need of such quarters for these noncommissioned officers d the appropriation should be liberal until such time as suitable bitations are supplied.

MEDICAL AND HOSPITAL SUPPLIES.

FINANCES.

The appropriation made by Congress for the fiscal year 1917 was ,500,000.

From the time war was declared until the 1st of July (two and a lf months) the supply division had compiled estimates of the quirements of 1,000,000 men for one year and had actually placed ntracts for $11,712,000 worth of medical supplies, under the urgent ficiency act, approved June 15, the deliveries called for being such to insure an adequate amount being on hand when the National my camps were opened.

PURCHASE AND DISTRIBUTION OF MEDICAL SUPPLIES.

In order to assure the prompt furnishing of medical supplies for an my in the field, three important duties devolve upon the supply vision of the Medical Department, as follows:

Procurement of the supplies in sufficient time to deliver them to e distributing points before they are required. The needs for six ›nths in advance must be anticipated. Large purchases must be ıde and a reserve supply be on hand for emergencies. Twelve ›nths' supply should be in sight.

Transportation of these supplies to suitable distributing points for ue to the troops. This was materially facilitated on the border by the cooperation of the Quartermaster Corps and the railroa Cars were tagged with distinctive labels or cards, indicating th character and that they were Government stores.

Distributing points must be easy of access. The supplies m be issued with the least possible delay. The number of offi through which requisitions pass must be reduced to the minim compatible with the conservation of the supplies. This was acco plished in the Southern Department by authorizing the officer charge of the depot to make issues without reference to hig authority.

To facilitate the purchase of the large quantities of medical s plies necessary for the war, the medical supply depots at New Y City, N. Y., Washington, D. C., and St. Louis, Mo., have been grea expanded. New buildings have been leased, and arrangements being made with the railroad companies to run spur tracks dir to these depots. During the war all post supplies will be purcha at New York, field supplies at Washington, and veterinary supp at St. Louis.

To facilitate the distribution of these supplies, four new subsidi depots have been established. The supplies will be transferred bulk from the purchasing depots to the subsidiary depots, whe they will be issued on approved requisitions to all military posts camps. The new issuing depots are located at Philadelphia, Atlanta, Ga., Chicago, Ill., and France.

The supply depots formerly established at San Antonio, T San Francisco, Cal., Honolulu, Hawaii, and Manila, P. I., will tinue their functions as issuing depots. The medical supply de at El Paso, Tex., has been abandoned, and all supplies form issued from that depot will be issued by the San Antonio depot.

In addition to the above, a motor-ambulance supply depot been established at Louisville, Ky. All motor ambulances will assembled at and distributed from this depot. A standard typ motor ambulance has been adopted by the ambulance board. standard body can be readily adapted to fit any chassis.

MEDICAL SUPPLIES FOR MEXICAN BORDER.

The medical supply depots in the Southern Department form established at San Antonio and El Paso, Tex., to supply the tr along the border and in Mexico, brought this work to a succe conclusion. The inspector general reported that the medical plies had been promptly furnished, and in sufficient quantities.

DECENTRALIZATION.

On account of the war, department surgeons and division surg have been authorized to call upon the medical supply officers in t vicinity to issue standard medical supplies, without reference to Surgeon-General's Office.

CANTONMENT UNITS.

In order to avoid possible confusion and delay in the equipr of cantonment hospitals, the large purchasing depots were furni with a list of supplies known as a cantonment unit, with instru o assemble a sufficient number for the camps in their vicinity. As oon as the cantonment hospitals are completed instructions will be iven to ship these units to them. They will be used as a nucleus or base hospitals, additional supplies being furnished on requisition rom time to time as needed.

MEDICAL SUPPLY DEPOTS AT CAMPS.

A medical supply depot is also being established at each of these amps. It will be stocked with expendable articles for routine ssues to camp infirmaries. Standard medical supplies will there-ore be available at every camp.

VACCINES.

Typhoid and paratyphoid vaccines have been forwarded in bulk rom the Army Medical School, Washington, D. C., to the various nedical supply depots, including those located at the cantonments, vhence they are issued direct to post surgeons and camp surgeons.

Arrangements have been made through the biological committee f the Council of National Defense to have an ample supply of small-ox vaccine available in the vicinity of each camp, to be promptly urnished to the camps upon request of the medical supply officers.

BLANK FORMS.

Blank forms have also been placed in all the supply depots, to be mmediately available for distribution as needed.

SSISTANCE RENDERED BY COMMITTEES OF COUNCIL OF NATIONAL DEFENSE.

The various committees of the medical section, Council of National efense, have materially assisted the Medical Department in effecting he purchase of enormous quantities of supplies. In this connection articular mention should be made of the activities of the surgical nstruments committee.

SURGICAL INSTRUMENTS.

Eighty per cent of the surgical instruments in this country were ormerly made in Germany. As a result of the activities of this ommittee, arrangements have been made to supply the Army and avy and contracts let for the necessary instruments. This has een accomplished only after the most strenuous endeavor and the tilization of all resources in this country.

X-RAY APPARATUS.

The officer in charge of this work has been a member of the sub-ommittee of the Council of National Defense, which has charge of he standardization of apparatus, and has also acted in an advisory apacity to the supply division of the American Red Cross. This as made it possible to compile a standard list of X-ray apparatus, which has been adopted by the Council of National Defense and adhered to in all essentials by the supply division of the Surgeon-General's Office and by the Red Cross. This standard list includes both stationary and portable apparatus.

The machines of those manufacturers whose apparatus has met the specifications are set up and in operation at Cornell Medical College, in New York City, where a school has been established for instruction in military roentgenology. Branch schools have also been established in eight other cities for instruction in this work.

By cooperation with a committee of the American Roentgen Ray Society, methods of localization of foreign bodies have been standardized and instrument manufacturers are now making up the various standard instruments for this work.

Manufacturers of X-ray apparatus have cooperated with this department so thoroughly that there will probably be no difficulty in securing all of the apparatus needed throughout the duration of he war at a fair price to the Government.

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs and apparatus, or commutation therefor, orders on manufacturers were given during the fiscal year for 20 artificial legs and 1 arm. Commutation certificates were issued for 126 cases of amputated leg, 55 of amputated foot and 901 cases of loss of use of limb.

Under the act of June 17, 1870, and subsequent amendments thereto, 23,741 disabled soldiers and sailors have been furnished artificial limbs and apparatus, or have received commutation in money, since the passage of the act, as follows:

Total number benefited to June 30, 1917	23, 74
Died	16, 60
Dropped from rolls	59
Rejected after one or more payments	57
Remaining on the rolls at the end of the fiscal year	5, 97
Loss of beneficiaries during the year	51

APPLIANCES AND TRUSSES.

Eighty-one appliances were issued during the fiscal year endin June 30, 1917, and 153 trusses for disabled soldiers were furnishe and fitted.

ARMY MEDICAL MUSEUM.

The total number of specimens in the museum at the close of the fiscal year June 30, 1917, is 47,681.

The following statement shows in detail the additions and changes in the different sections:

Pathological section:		
In museum June 30, 1916		13,089
Discarded		2
		13,087
Received during the year		55
In museum June 30, 1917		13,142
Anatomical section:		
In museum June 30, 1916		1,251
Discarded	2	
Donated	1	
		3
		1,248
Received during the year		40
In museum June 30, 1917		1,288
Comparative anatomy section:		
In museum June 30, 1916		601
Received during the year		1
In museum June 30, 1917		602
Microscopical section:		
In museum June 30, 1916, and June 30, 1917		12,916
Miscellaneous section:		
In museum June 30, 1916		4,014
Discarded		1
		4,013
Received during the year		205
In museum June 30, 1917		4,218
Provisional anatomy section:		
In museum June 30, 1916, and June 30, 1917		293
Photographic section, including negatives:		
In museum June 30, 1916		15,149
Photographs received during the year		73
In museum June 30, 1917		15,222

RECAPITULATION.

In museum June 30, 1916	47,313
Discarded and donated	6
	47,307
Received during the year	374
In museum June 30, 1917	47,681

The following are some of the more interesting specimens receive during the year ending June 30, 1917:

Malformations.—Specimen 14672, human fetus at 7½ months showing cranior achischisis; contributed by Dr. H. C. Macate Washington D. C. Specimen 14652, atresia ani; infant died tent day; apparent cause, prenatal adhesions; contributed by Dr. J. R Wellington, Washington, D. C.

Interstitial pregnancy.—Specimens 14647–14648, uterus, appendage and fetus; removed and contributed by Dr. I. S. Stone, Washingto D. C.

Shot fractures of jaws.—Specimens 14661–14671, series of plaste casts from European War of 1914–1917, showing results of dent operative work; made and contributed by Dr. William C. Speakma Wilmington, Del.

Fibrosarcoma of clavicle.—Specimen 14650, removed by operatio from soldier, age 23; contributed by Lieut. Col. H. A Webbe Medical Corps, United States Army.

Brain.—Specimen 14631, endothelioma of left middle front gyrus; soldier, age 32; contributed by Capt. G. I. Jones, Medic Corps, United States Army. Specimen 14657, softening and he orrhage; from an Army officer; contributed by Maj. P. M. Ashbur Medical Corps, United States Army. Specimen 14683, leptome ingitis; no history; contributor unknown.

Spinal cord.—Specimen 14675, tumor; contributed by Fir Lieut. H. G. Maul, Medical Corps, United States Army.

Eye.—Specimen 14673, melanotic sarcoma; from girl 3 years ol removed and contributed by Dr. D. K. Shute, Washington, D. C.

Nose.—Specimen 14645, screw worms removed from nose of so dier who had ozena; 152 worms; contributed by Maj. G. E. Youn First Arizona Infantry.

Circulation.—Specimen 14630, aneurism of arch of aorta, ruptu into left pleural sac; soldier, age 44; contributed by Capt. H. Nichols, Medical Corps, United States Army. Specimen 1465 Hodgkin's disease; tumor of lymph nodes in mediastinum; le lung also involved; from a Philippine Scout, age 26, who died lobular pneumonia; contributed by Lieut. H. G. Maul, Medic Corps, United States Army. Specimen 14681, lymphosarcoma lymph nodes of neck and superior mediastinum; from soldier, a 28; contributed by Lieut. J. S. Gaul, Medical Corps, United Stat Army.

Lung.—Specimen 14679, sarcoma, secondary to sarcoma of l which was amputated; retired soldier, age 78; contributed by Ca A. D. Tuttle, Medical Corps, United States Army. (See also 1468 kidney.)

Esophagus.—Specimen 1453, carcinoma of pharyngeal en retired soldier, age 82; contributed by Capt. A. D. Tuttle, Medic Corps, United States Army.

Stomach.—Specimen 14656, solitary ulcer; death from hem rhage; retired soldier, age 84; contributed by Capt. A. D. Tutt Medical Corps, United States Army.

Small intestine.—Specimen 14636, sarcoma; soldier, age 26, co tributed by Lieut. F. H. Petters, Medical Corps, United States Arm Two specimens of paratyphoid A, ulcer, 14651, from soldier, age contributed by Capt. G. F. Lull, Medical Corps, United States Arm e other, 14654, from a soldier, age 27; one ulcer had perforated; ntributed by Capt. H. H. Johnson, Medical Corps, United States rmy.

Liver.—Specimen 14660, necrobacillosus; from a cow that sud-nly died; contributed by Dr. C. B. Robinson, veterinary surgeon, ashington, D. C. Specimen 14640, multiple abscesses of liver; om Army officer, age 40, who had had malaria; died of septicemia; ntributed by Lieut. F. H. Petters, Medical Corps, United States rmy.

Kidney.—Specimen 14676, prosphatic calculi removed from pelvis ureter; soldier; contributed by Lieut. H. G. Maul, Medical Corps, nited States Army. Specimen 14680, cyst of kidney; same case 14679, sarcoma of lung; retired soldier, age 78; contributed by apt. A. D. Tuttle, Medical Corps, United States Army.

Urinary bladder.—Specimen 14643, carcinoma; retired soldier, age ; contributed by Lieut. B. L. Wilson, Medical Reserve Corps, nited States Army.

Testicle.—Specimen 14641, primary carcinoma; secondary foci in ng (see 14642); civilian, age 30; contributed by Capt. A. D. Tuttle, edical Corps, United States Army. Specimen 14678, tuberculosis of sticle; removed and contributed by Lieut. F. H. Petters, Medical orps, United States Army.

Mammary gland.—Specimen 14634, large cysts of female mammary and; contributed by Dr. E. C. Folkmar, Washington, D. C.

Miscellaneous section.—Specimen 4192, plaster cast of hand of resident Lincoln. Specimen 4195, plaster cast of hand of Keller, the restidigitateur. Specimen 4194, model of central nervous system, evised by Prof. Gaylord P. Clark. Specimen 4210–4211, plaster cast the "Piltdown" skull. Specimen 4221, German gas mask; con-ributed by Lieut. E. F. Riggs, United States Army. Specimens 222–4224, French gas mask and appurtenances; contributed by ieut. Col. Spencer Cosby, United States Army. Specimens 4242 and 267, British gas masks, contributed by Col. A. E. Bradley, United tates Army. Specimen 4217, fragments of a Zeppelin that was lown up; contributed by Maj. W. J. L. Lyster, Medical Corps, United tates Army. Specimen 4239, British helmet perforated by missile; ntributed by Maj. Lyster. Specimen 4240, British helmet perfo-ated by rifle bullet; contributed by Col. A. E. Bradley, United States rmy. Specimen 4268, British trench litter; contributed by Asso-iation of United States Military Surgeons. Specimens 4275 to 4387, ries of medals, purchased.

Photographs.—Specimens 4094 to 4118, series of photographs of ot injury of face, from European war 1914–1917, contributed by r. William C. Speakman, Wilmington, Del.

TABLE No. 47.—*Dental oral diseases, year 1916, officers and enlisted men.*

	Cases admitted to treatment.		Operations performed.	
	Number.	Ratio.	Number.	Ratio.
United States (Continental) exclusive of Alaska	90,806	1,408.59	118,330	1,835
Philippine Department	18,266	1,024.86	20,039	1,124
Hawaiian Department	13,220	1,504.15	15,921	1,811
Canal Zone, Panama	6,602	940.13	9,255	1,317
China	1,843	1,346.24	1,742	1,272
Mexico	10,845	1,299.89	11,735	1,406
Porto Rico	493	497.48	823	830
Total	142,075	1,286.28	177,845	1,610

DENTAL CARIES—NUMBER OF TEETH TREATED.

	White troops.		Colored troops.		Porto Ricans.		Philippine Scouts.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Rat
United States (Continental), excluding Alaska	55,697	875.23	731	881.79	......	......	......	......	56,428	875
Mexico	3,814	590.04	928	493.88	......	......	......	......	4,742	568
Philippine Department	7,472	661.30	174	184.13	......	......	1,644	294.68	9,290	521
Hawaiian Department	7,147	1,023.78	1,314	726.77	......	......	......	......	8,461	962
Canal Zone, Panama	3,357	478.00	......	......	......	......	......	......	3,357	478
China	1,076	785.98	......	......	......	......	......	......	1,076	785
Porto Rico	......	......	......	......	258	270.16	......	......	258	270
Total	78,563	798.74	3,147	565.91	258	270.16	1,644	294.68	83,612	757

FINANCIAL STATEMENT, 1917.[1]

Medical and hospital department, 1917–18, act June 15, 1917.

Appropriated by act approved June 15, 1917		$29,780,000.00
Disbursed during the year:		
Medical and hospital supplies	$304,937.03	
Balances on hand June 30, 1917:		
In United States Treasury	28,480,000.00	
In hands of disbursing officers	995,062.97	
Total accounted for		29,780,000.00

Medical and hospital department, 1917.

Appropriated by act approved Aug. 29, 1916		4,500,000.00
Refundments during the year		1,435.56
Total to be accounted for		4,501,435.56
Disbursed during the year:		
Expenses of medical supply depots	$1,363.82	
Medical and hospital supplies	2,942,551.92	
Medical attendance and medicines (except at recruiting stations)	47,036.86	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	18,048.75	
Pay of employees	323,418.64	
Hospital laundry	110,922.58	
Expressage	21,331.82	
Gas and electricity for laboratory apparatus	2,320.11	
Customs duties and internal-revenue taxes on medical supplies	154.96	
Miscellaneous	253.20	
		3,467,402.66
Treasury transfers to "Medical and hospital department, 1916," to correct erroneous payments therefrom		334.13
Transferred by Secretary of War to administrative control of Quartermaster General		310,000.00
Balances on hand June 30, 1917:		
In United States Treasury	$562,798.02	
In transit from disbursing officers to the Treasury	2,271.26	
In hands of disbursing officers	158,629.49	
		723,698.77
Total accounted for		4,501,435.56

Medical and hospital department, 1916–17.

Appropriated by act approved July 1, 1916		1,584,000.00
Disbursed during the year:		
Medical and hospital supplies	1,124,084.26	
Medical attendance and medicines (except at recruiting stations)	172.60	
Pay of employees	87.50	
Hospital laundry	29.66	
		1,124,374.02

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[1] The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury and charged to these appropriations.

Balances on hand June 30, 1917:		
In United States Treasury	$399, 750. 96	
In hands of disbursing officers	59, 875. 02	
		$459, 625.
Total accounted for		1, 584, 000.

Medical and hospital department, 1916.

Balance on hand July 1, 1916		138, 910.
Refundments to appropriation		334.
Erroneous Treasury transfer to appropriation		301.
Total to be accounted for		139, 546.
Disbursed during the year:		
Expenses of medical supply depots	$270. 76	
Medical and hospital supplies	113, 214. 43	
Medical attendance and medicines (except at recruiting stations)	4, 516. 18	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	1, 107. 95	
Pay of employees	2, 564. 51	
Hospital laundry	7, 833. 73	
Expressage	94. 18	
Gas and electricity for laboratory apparatus	410. 22	
Miscellaneous	20. 00	
		130, 031.
Treasury transfers to other appropriations to correct erroneous charges thereto		449.
Balances on hand June 30, 1917:		
In United States Treasury	$6, 293. 68	
In hands of disbursing officers	2, 771. 00	
		9, 064
Total accounted for		139, 546

Medical and hospital department, 1915.

Balance on hand July 1, 1916		6, 765
Treasury transfer to correct erroneous deposit		11
Total to be accounted for		6, 776
Disbursed during the year:		
Medical and hospital supplies	$371. 45	
Medical attendance and medicines (except at recruiting stations)	30. 50	
Expressage	. 39	
		402
Carried to surplus fund		6, 374
Total accounted for		6, 77

Medical and hospital department, certified claims.

Appropriated by act approved Apr. 17, 1917	
Disbursed during the year	

Replacing medical supplies, 1917–18.

[Act June 12, 1906, 34 Stats., 256.]

Amounts accruing to this fund during the year:	
On account of supplies transferred to other branches of the Government	34, 37
On account of supplies sold	38, 33
On account of collections for medical supplies lost or destroyed	43
Total to be accounted for	73, 14
Balance in United States Treasury June 30, 1917	73, 14

Replacing medical supplies, 1916–17.

lance on hand July 1, 1916		$97,406.30
nounts accruing to this fund during the year:		
On account of supplies transferred to other branches of the Government		9,291.75
On account of supplies sold		2,718.71
On account of collections for medical supplies lost or destroyed		240.70
On account of refundment to appropriation		559.56
Total to be accounted for		110,217.02
sbursed during the year for medical and hospital supplies		100,931.22
lances on hand June 30, 1917:		
In United States Treasury	$8,949.95	
In hands of disbursing officer	335.85	
		9,285.80
Total accounted for		110,217.02

Replacing medical supplies, 1915–16.

lance on hand July 1, 1916		99,413.73
iount accrued to this fund during the year on account of supplies ransferred to other branches of the Government		746.58
Total to be accounted for		100,160.31
sbursed during the year for medical and hospital supplies		99,516.45
lances on hand June 30, 1917:		
In United States Treasury	$159.93	
In hands of disbursing officer	483.93	
		643.86
Total accounted for		100,160.31

Replacing medical supplies, 1914–15.

lance on hand July 1, 1916	8,143.01
bursed during the year for medical and hospital supplies	8,059.80
ried to surplus fund	83.21
Total accounted for	8,143.01

Hospital care, Canal Zone garrisons, 1917.

propriated by act approved Aug. 29, 1916		45,000.00
bursed during the year		37,521.60
lances on hand June 30, 1917:		
In United States Treasury	$3,000.00	
In hands of disbursing officer	4,478.40	
		7,478.40
Total accounted for		45,000.00

Hospital care, Canal Zone garrisons, 1916.

lance on hand July 1, 1916	17,290.82
bursed during the year	5,490.25
lance in United States Treasury June 30, 1917	11,800.57
Total accounted for	17,290.82

Hospital care, Canal Zone garrisons, 1915.

Balance on hand July 1, 1916		$13,837
Disbursed during the year		39
Carried to surplus fund		13,798
Total accounted for		13,837

Library, Surgeon General's Office, 1917.

Appropriated by act approved Aug. 29, 1916		10,00
Disbursed during the year		2,61
Balances on hand June 30, 1917:		
In United States Treasury	$6,556.75	
In hands of disbursing officer	829.44	
		7,38
Total accounted for		10,00

Library, Surgeon General's office, 1916.

Balance on hand July 1, 1916		7,77
Refundment to appropriation		1
Total to be accounted for		7,78
Disbursed during the year		3,00
Balances on hand June 30, 1917:		
In United States Treasury	$772.36	
In hands of disbursing officer	4,007.19	
		4,77
Total accounted for		7,78

Library, Surgeon General's office, 1915.

Balance on hand July 1, 1916		2,41
Disbursements		31
Carried to surplus fund		2,09
Total accounted for		2,41

Army Medical Museum, 1917.

Appropriated by act approved Aug. 29, 1916		5,0
Disbursed during the year		1,39
Balances on hand June 30, 1917:		
In United States Treasury	$2,100.00	
In hands of disbursing officer	1,501.52	
		3,6
Total accounted for		5,0

Army Medical Museum, 1916.

Balance on hand July 1, 1916		2,2
Disbursed during the year		1,7
Balances on hand June 30, 1917:		
In United States Treasury	$300.00	
In hands of disbursing officer	198.68	
		4
Total accounted for		2,2

Army Medical Museum, 1915.

ance on hand July 1, 1916		$2,460.77
ried to surplus fund		2,460.77

Artificial limbs, 1917.

propriated by act approved July 1, 1916		65,000.00
bursed during the year		57,039.26
ances on hand June 30, 1917:		
In United States Treasury	$5,850.00	
In hands of disbursing officer	2,110.74	
		7,960.74
Total accounted for		65,000.00

Artificial limbs, 1916.

ance on hand July 1, 1916	15,325.26
bursed during the year	1,978.55
ance in United States Treasury June 30, 1917	13,346.71
Total accounted for	15,325.26

Artificial limbs, 1915.

ance on hand July 1, 1916	45,686.42
bursed during the year	69.86
ried to surplus fund	45,616.56
Total accounted for	45,686.42

Trusses for disabled soldiers, 1917.

propriated by act approved July 1, 1916		2,500.00
bursed during the year		1,038.09
ances on hand June 30, 1917:		
In United States Treasury	$1,300.00	
In hands of disbursing officer	161.91	
		1,461.91
Total accounted for		2,500.00

Trusses for disabled soldiers, 1916.

ance on hand July 1, 1916	1,559.04
bursed during the year	95.17
ance in United States Treasury June 30, 1917	1,463.87
Total accounted for	1,559.04

Trusses for disabled soldiers, 1915.

ance on hand July 1, 1916	1,708.67
ried to surplus fund	1,708.67

Appliances for disabled soldiers, 1917.

Appropriated by act approved July 1, 1916		$1,000
Disbursed during the year		474
Balances on hand June 30, 1917:		
In United States Treasury	$300.00	
In hands of disbursing officer	225.65	
		525
Total accounted for		1,000

Appliances for disabled soldiers, 1916.

Balance on hand July 1, 1916	697
Disbursed during the year	66
Balance in United States Treasury June 30, 1917	631
Total accounted for	697

Appliances for disabled soldiers, 1915.

Balance on hand July 1, 1916	690
Carried to surplus fund	690

Civilian military training camps, 1916–17.

Amount allotted by The Adjutant General Dec. 20, 1916	5,892
Balance in United States Treasury June 30, 1917	5,892

General summary of all appropriations.

Balances on hand July 1, 1916	462,309
Appropriated	35,998,39
Accrued to replacing funds, act June 12, 1906 (34 Stats., 256)	86,139
Refundments during the year	1,868
Transfers between appropriations, debits	784
Total to be accounted for	36,549,497
Disbursed during the year	5,348,53
Transfers between appropriations, credits	78
Transfer to administrative control of Quartermaster General	310,000
Carried to surplus fund	72,83
Balances on hand June 30, 1917	30,817,35
Total accounted for	36,549,49

VITAL STATISTICS INDEX.

[See p. 464.]

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916.*

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	EYE.											
dectomy	Leukoma	1	1	...	...	...	...	...	...	...	1	...
cision and drainage	Retrobulbar abscess	1	1	...	...	...	...	1	...	...	...	...
moval of lens 1 xtraction, Indian 1 xtraction, simple 1	Cataract	3	3	...	...	...	...	...	...	...	3	...
xtraction, combined operation.	Senile cataract	1	1	...	...	...	...	...	...	...	1	...
dectomy 1 docapsulotomy 1	Secondary cataract	2	2	...	...	...	...	...	...	...	2	...
nucleation	Gunshot wound involving eye.	6	6	...	...	...	...	6	...	...	...	...
Do	Destruction of eye	1	1	...	...	...	...	1	...	...	...	...
Do	Crushing of eye	1	1	...	...	...	1	...	...	...	...	...
Do	Laceration of eye	1	1	...	...	...	1	...	...	...	...	...
Do	Rupture of sclera	1	1	...	...	...	...	1	...	...	...	...
Do	Punctured wound of eye	1	1	...	...	...	...	1	...	...	...	...
Do	Panophthalmitis	3	3	...	...	...	...	3	...	...	...	...
Do	Leukoma and staphyloma	1	1	...	...	...	...	1	...	...	...	...
Do	Staphyloma	1	1	...	...	...	...	1	...	...	...	...
Do	Retrobulbar abscess	1	1	...	...	...	...	1	...	...	...	...
dectomy	Iris caught in scar	3	3	...	...	...	...	...	...	...	3	...
notomy, internal rectus 1 lvancement, external rectus 1	Convergent strabismus	2	2	...	...	...	...	...	...	...	2	...
lvancement, internal rectus.	Divergent strabismus	2	2	...	...	...	...	...	...	...	2	...
astic repair	Ectropion, upper lid	1	1	...	...	...	...	...	...	...	1	...
Do	Old deformity eyelid	2	2	...	...	...	...	...	...	...	2	...
xcision and suture 31 Reynolds' operation 19 xcision and burial of tump 1 ansplantation 19	Pterygium	70	70	...	...	...	...	3	...	...	57	...
cision of canaliculus 4 astic operation 1	Dacryocystitis	5	5	...	...	...	...	...	...	...	4	1
litting of canal	Occlusion of canaliculus	2	2	...	...	...	...	...	...	...	2	...
nthotomy	Contraction of external canthus.	1	1	...	...	...	...	...	...	...	1	...
rettement 2 uterization 1 moval of foreign body 1	Corneal ulcer	4	4	...	...	...	...	...	...	...	4	...
cision and curettement.	Corneal granuloma	1	1	...	...	...	...	...	...	...	1	...
xpression	Trachoma	6	6	...	...	...	...	...	...	...	6	...
xcision 12 xcision and curettement 8	Chalazion	20	20	...	...	...	...	...	...	...	18	2
Do	Cyst subconjunctival	2	2	...	...	...	...	...	...	...	2	...
xcision	Cyst sebaceous, outer canthus.	1	1	...	...	...	...	...	...	...	1	...
xtraction	Foreign body in cornea	34	34	...	...	...	...	...	...	...	34	...
xtraction by electromagnet.	Piece of steel in retina	1	1	...	...	...	...	...	...	...	1	...
turing and cleansing	Laceration of lid	4	4	...	...	...	...	1	...	...	3	...
	EAR.											
astoidotomy 22 astoidotomy (Bezold) 1 hwartze's operation 1 adical operation 3 miradical operation 2	Mastoiditis	29	29	...	...	...	...	27	...	...	2	...
cision and drainage 13 aracentesis 60 rettement necrosed tissue 1	Otitis media	74	74	...	...	...	...	6	...	1	67	...

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officer and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.
	EAR—continued.										
Incision and curettement. 13 Incision and drainage 21	Otitis externa	34	34	...	...	...	1	4	...	...	10
Do	Abscess external auditory canal.	1	1	...	...	...	...	...	...	...	1
Removal	Polypus external auditory canal.	1	1	...	...	...	...	...	...	...	1
	NOSE.										
Removal of ethmoid cells 1 Curettement 1 Turbinectomy 8 Crushing of turbinate 3 Sinusotomy 5 Kilian's operation 2 Submucous resection 2 Partial turbinectomy 2	Frontal sinusitis	24	24	...	...	...	...	10	...	...	14
Hajec luc	Sinusitis, frontal and ethmoidal.	1	1	...	...	...	...	1	...	...	...
Turbinectomy	Ethmoidal sinusitis	2	2	...	...	...	...	...	...	...	2
Do 1 Ethmoidectomy 2	Ethmoiditis	3	3	...	...	...	...	1	...	...	2
Puncture and drainage 1 Resection of antrum and drainage 1	Maxillary sinusitis	2	2	...	...	...	...	...	...	...	2
Incision and drainage	Abscess of antrum	1	1	...	...	...	...	...	...	...	1
Rhinoplasty, normal contour of nose restored by graft from eighth costal cartilage.	Saddle nose	1	1	...	...	...	...	1	...	...	...
Fracture and replacement	Deformity of nasal bones	1	1	...	...	...	...	1	...	...	...
Refracture and resetting	Fracture of nose, old	1	1	...	...	...	...	...	...	...	1
Do	Nasal deviation, due to fracture.	1	1	...	...	...	...	...	...	...	1
Plastic operation	External nasal deformity	6	6	...	...	...	...	3	...	...	3
Removal of spur 2 Submucous resection 285 Resection of septum 12	Deviation and deflection of septum.	299	299	...	...	...	...	20	...	...	279
Resection and reduction	Dislocation of septum	1	1	...	...	...	...	...	...	...	1
Submucous resection	Nasal obstruction	2	2	...	...	...	...	...	...	...	2
Removal of tips of turbinate 2 Turbinectomy 49 Partial turbinectomy 23 Linear cauterization 1 Electric cauterization 1	Hypertrophy of turbinate.	76	76	...	...	...	...	3	...	...	73
Removal of spur from inferior turbinate and ridge from septum.	Rhinitis, chronic, hypertrophic.	1	1	...	...	...	...	...	...	...	1
Cauterization 1 Excision and plastic repair 1	Epithelioma, nostril	2	2	...	...	...	...	...	...	...	2
Removal with snare 15 Excision 26	Polypus	41	41	...	...	...	...	1	...	...	39
Do	Tumor, postnasal	1	1	...	...	...	...	1	...	...	...
Submucous removal 1 Removal with saw 1 Resection 6	Septal spur	8	8	...	...	...	...	...	...	...	8
Curettement 2 Adenectomy 43	Adenoids	45	45	...	...	...	...	17	2	...	21
	MOUTH AND PHARYNX.										
Excision and suture 1 Excision with plastic repair 1	Epithelioma, lower lip	2	1	1	...	...	...	2	...	...	...

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	MOUTH AND PHARYNX—continued.											
cision	Chronic ulceration of lip	1	1								1	
Do	Chancre of lip	1	1								1	
Do	Chancre of tongue	1	1								1	
cision and cauterization 1 section one-third of ongue 1 ock dissection side of eck, ligation of lingual artery, excision alf of tongue, and auterization of floor f mouth 1	Carcinoma of tongue, recurrent.	3	1	2				3				
cision	Carcinoma, submaxillary	1	1						1			
ploratory incision	Sarcoma, parotid gland	1	1					1				
ision and drainage	Adenitis, parotid gland	1	1								1	
Do	Adenitis, sublingual	2	2								2	
ision and extraction	Sialolithiasis	1	1								1	
tirpation	Cyst, sublingual	1	1					1				
cision	Hypertrophy of lingual tonsil.	4	4					1			3	
moval of tonsil and umor.	Papilloma of tonsil	1	1				1					
nsillectomy	Submerged tonsil	3	3					3				
ision and drainage	Ludwig's angina	2	2				1				1	
nsillectomy	Tonsillitis	242	242					36	1	10	194	1
Do	Hypertrophy of tonsil	377	377				1	121			252	3
ision and drainage	Tonsillar and peritonsillar abscess.	135	135					3		3	64	65
rettement 3 enectomy 39	Adenoids, pharyngeal	42	42					28			13	1
	NECK AND THORAX.											
cision right lobe 1 yroidectomy 7 ation superior poles f thyroid 1	Goiter	9	9					9				
ation, thyroid arteies 1 section right lobe and sthmus 1	Goiter, exophthalmic	2	2					2				
ision and drainage	Cyst, glosso-pharyngeal	1	1								1	
cision	Fistula, thyro-glossal	1	1								1	
ctric cauterization	Tuberculous larynx	3	3								3	
turing	Incised wound of throat	1	1					1				
section of rib 2 racentesis 13 piration 9	Pleurisy	24	24				1	2			16	5
statectomy 5 section of rib and rainage 18	Empyema	23	20	3				13		4	4	2
Do	Empyema and abscesses of lung.	1				1		1				
section of rib and cauterzation.	Abscess of lung, due to fractured rib with laceration of pleura.	1				1		1				
piration	Gangrene of lung	1	1					1				
ploration	Gunshot wound with laceration of lung.	1				1		1				

TABLE NO. 66.—*Surgical operations performed by officers of the Medical Corps on officer and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	Non
	ABDOMEN.											
Gastroenterostomy..... 11 Gastroenterostomy posterior..... 1 Laparotomy exploratory..... 1	Ulcer of stomach..........	13	13	...	...	...	...	13	...	...	...	
Gastrotomy, negative exploration.	Suspected ulcer of stomach	3	3	...	...	...	...	3	...	...	...	
Gastropexy (Rovsing)......	Gastroptosis, severe.......	1	1	...	...	...	...	1	...	...	...	
Gastrectomy, partial........	Hour-glass stomach........	1	1	...	...	...	...	1	...	...	...	
Exploration, rent sutured..	Rupture lesser curvature, near pyloric end of stomach.	1	1	...	...	...	...	1	...	...	...	
Posterior gastrojejunostomy..... 6 Excision of ulcer, and gastrojejunostomy... 5 Excision of ulcer and suture drainage...... 1 Closure of perforation... 1 Exploration and closure with suture.......... 1 Exploratory operation . 1	Ulcer of duodenum........	15	12	...	...	3	1	14	...	...	...	
Jejunostomy...............	Hemorrhage, post-operative after excision and repair of ruptured ulcer of duodenum.	1	1	...	...	...	...	...	...	...	1	
High exploratory operation.	Ulcer of gall bladder and stomach.	1	1	...	...	...	...	1	...	...	...	
Omentopexy...............	Cirrhosis of liver, with perforations.	1	1	...	...	...	...	1	...	...	...	
Exploratory puncture, with trocar. 1 Incision and drainage .. 4 Thoraco-hepatotomy... 1	Abscess of liver............	6	5	...	1	...	...	6	...	...	...	
Cholecystotomy........ 8 Cholecystectomy....... 10 Cholecystostomy....... 6	Cholecystitis..............	24	23	...	1	...	...	24	...	...	...	
Laparotomy exploratory...	Suspected cholecystitis....	1	1	...	...	...	...	1	...	...	...	
Cholecystotomy........ 2 Cholecystectomy....... 1 Cholecystostomy....... 5	Cholelithiasis..............	8	8	...	...	...	...	8	...	...	...	
Cholecystectomy...........	Cholelithiasis with contracted gall bladder.	2	2	...	...	...	...	2	...	...	...	
Exploration, gall bladder and liver.	Suspected empyema, gall bladder.	1	1	...	...	...	...	1	...	...	...	
Exploration and appendectomy.	Cirrhosis of liver hypertrophic.	1	1	...	...	...	...	1	...	...	...	
Paracentesis...............	Cirrhosis of liver, with ascitis.	2	2	...	...	...	...	2	...	...	...	
Cholecystectomy...........	Fistula of gall bladder after cholecystotomy.	1	...	...	...	1	...	1	...	...	...	
Laparotomy................	Hepatitis..................	1	1	...	...	...	...	1	...	...	...	
Cholecystotomy............	Cholangitis................	1	1	...	...	...	...	1	...	...	...	
Cholecystostomy...........	Pancreatitis chronic.......	1	1	...	...	...	...	1	...	...	...	
Appendectomy...... 1,229 Incision and drainage of abscess...... 8	Appendicitis (9 appendectomies were incidental to other operations).	1,237	1,222	2	...	13	...	1,212	23	...	2	
Enterostomy (secondary appendectomy).	Appendicitis with intestinal obstruction.	1	...	...	...	1	...	1	...	...	...	
Appendectomy..............	Appendicitis tuberculous..	1	1	...	...	...	...	1	...	...	...	
Exploration, negative......	Suspected appendical abscess.	1	1	...	...	...	...	1	...	...	...	
Incision and drainage.......	Sinus following appendectomy.	2	2	...	...	...	...	2	...	...	...	

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	ABDOMEN—continued.											
ndrews's operation .. 3 assini's operation .... 394 assini's modified operation 36 erguson's operation.. 71 erguson's modified operation 76 alstead's operation.. 8 lastic operation (technic not stated) 2 epair of hernia (operation not stated) ... 48 ransplantation, rectus muscle 5	Inguinal hernia (8 recurrent).	643	643	...	...	...	...	606	19	...	18	...
eduction, and purse-string suture.	Richters' hernia	1	1	...	...	...	...	1	...	...	...	...
xcision of sac, overlapping of fascia 4 epair of hernia (operation not stated) 5 ayo's operation 6 ayo's modified operation 9 aparotomy, fascia closed with mattress suture 2 lastic operation 1 epair by overlapping peritoneum and sliding muscles 1	Ventral hernia (5 postoperative).	28	28	...	...	...	...	26	1	...	1	...
ppendectomy, closure of wounds in fascia and muscles.	Ventral hernia over McBurney's point.	1	1	...	...	...	...	1	...	...	...	...
assini's operation 1 oley's purse-string operation 1 schmir's operation 1 erniotomy (operation not stated) 2	Femoral hernia	5	5	...	...	...	...	5	...	...	...	...
assini's operation	Relaxed inguinal ring	2	2	...	...	...	...	2	...	...	...	...
cision curetment and exposure.	Sinus following herniotomy.	1	1	...	...	...	...	1	...	...	...	...
liotomy, suture of liver and drainage 1 liotomy, closure of wards of stomach and sigmoid 1 liotomy, exploratory. 2 liotomy, exploratory and appendectomy 1 liotomy, resection of cecum with 1½ feet of ileum, lateral anastomosis of ileum and ascending colon 1 liotomy and enterorrhaphy 1 liotomy and suture 5 loops of bowels 1 esection 8 inches small intestine and end to end anastomosis 1 astic operation 1 aparotomy 1	Gunshot wound, perforating, abdomen.	11	9	...	...	2	...	11	...	...	...	...
ammerer incision, rupture closed with 2 rows of Lambert sutures.	Rupture of ascending colon, traumatic.	1	......	1	...	...	...	1	...	...	...	...

Table No. 66.—*Surgical operations performed by officers of the Medical Corps on officer and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	ABDOMEN—continued.											
Laparotomy, repair of gut, toilet of abdomen and drainage.	Rupture of small intestine, traumatic.	1	1					1				
Laparotomy	Contusion of abdomen	1	1					1				
Do	Contusion of intestines and kidneys, internal hemorrhage.	1				1					1	
Laparotomy, exploratory 1 Exploration and repair. 1	Stab wound abdomen	2	2					2				
Intestines replaced, and abdominal wall sutured.	Evisceration of intestines through former laparotomy wound.	1	1				1					
Resection of ileum	Intussusception of ileum	1	1					1				
Laparotomy 1 Laparotomy and enterostomy 4	Intestinal obstruction	5	4			1		4			1	
Removal of diverticulum	Intestinal obstruction caused by Meckel's diverticulum.	2	1			1		2				
Adhesions severed, raw surface covered with peritoneum 2 Sigmoidopexy 1 Ligation and division 2 Kink released 1	Lane kink	6	6					6				
Dissection	Jackson's membrane	2	2					2				
Excision, and suture of intestine.	Meckel's diverticulum	1	1					1				
Lateral anastomosis	Stricture of ileum, tuberculous.	2	2					2				
Laparotomy, exploratory	Colitis, ulcerative, with intramural abscess.	1				1		1				
Do	Peritonitis, tuberculous	3	3					3				
Laparotomy and drainage 7 Laparotomy and separation of adhesions 1 Appendectomy 3	Peritonitis	11	7			4		11				
Resection head of cecum, and 15 inches of ileum, anastomosis of ileum and ascending colon.	Gangrene of mesentery, ileum and ileocecal valve.	1				1		1				
Enterostomy	Perforated ulcer of ileum	1	1					1				
Ileo-colostomy and anastomosis 1 Excision 1	Fecal fistula	2	2					2				
Dissection and removal	Fistulous tract, lower abdominal quadrant.	1	1					1				
Separation of adhesions	Painful peritoneal adhesions, post-operative.	4	4					4				
Adhesions divided, ends turned in 2 Laparotomy exploratory 1	Abdominal adhesions	3	3					3				
Do	Adhesions greater portion, transverse colon.	1				1		1				
Do 2 Adhesions released 1	Adhesions following appendectomy.	3	3					3				
Pylorectomy and gastroenterostomy (Polya).	Adeno-carcinoma, gastric	1	1					1				
Gastroenterostomy	Carcinoma, gastric	1	1					1				
Resection of cecum	Sarcoma, caput coli	1	1					1				
Laparotomy, exploratory	Carcinoma, gastric, inoperable.	3	3					3				
Do	Sarcoma, cecum, inoperable.	1	1					1				

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	ABDOMEN—continued.											
Laparotomy	Carcinoma of pylorus, extensive.	3	3	...	...	...	...	3	...	...	...	...
Do.	Carcinoma of liver	2	2	...	...	...	...	2	...	...	...	...
Do.	Tumor, malignant of pancreas and upper abdominal viscera, inoperable.	1	1	...	...	...	...	1	...	...	...	...
Do.	Tumor, retroperitoneal	1	1	...	...	...	...	1	...	...	...	...
aparotomy and removal of tumor.	Gumma on omentum	1	1	...	...	...	...	1	...	...	...	...
aparotomy and excision of gland.	Enlarged lymphatic gland, meso-colon.	1	1	...	...	...	...	1	...	...	...	...
ncision and exploration 1 ncision and drainage 1	Subphrenic abscess	2	2	...	...	...	...	2	...	...	...	...
Do.	Abscess, peritoneal cavity, post-operative.	2	2	...	...	...	...	2	...	...	...	...
Do.	Abscess hypochondriac region.	2	2	...	...	...	...	1	...	1	...	...
Do.	Abscess, umbilical	1	1	...	...	...	...	1	...	...	...	...
urettement	Sinus, subcostal	1	1	...	...	...	...	1	...	...	...	...
aracentesis	Ascites	8	8	...	...	...	...	...	...	...	6	2
	ANUS AND RECTUM.											
urettement and drainage 8 ncision and packing 1 ncision and drainage 77 ncision and curetment 2	Ischio-rebscess	88	88	..	...	...	43	4	3	26	12	
Do. 2 ncision and drainage 7	Peri-rectal abscess	9	9	...	...	...	...	5	...	...	3	1
igmoidopexy with shortening of mesosigmoid 1 Vhitehead's operation 1 uttle's operation 1 esection 1 auterization 1 eduction, and dilatation of sphincter 1	Prolapse of rectum	6	4	1	1	...	...	6	...	...	...	...
ilatation	Multiple annular strictures of rectum.	2	1	...	...	1	1	1	...	...	...	...
xcision and cautery 1 xcision and suture 4 xcision 43 xcision, curettement, and packing 17 urettement 1 ilatation and cautery 1	Fistula in ano	67	66	1	...	...	2	51	2	1	11	...
urettement 1 ncision and drainage 1	Sinus at site of old fistula in ano.	2	2	...	...	..	..	1	...	...	1	..
urettement 1 ncision and curettement 2 ivulsion 3 ivulsion and cautery 6 xcision and closure 1	Fissure of anus	13	13	...	...	...	1	11	...	...	...	1

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	ANUS AND RECTUM—contd.											
Clamp and cautery..... 43 Clamp cautery and suture....................164 Excision................ 46 Excision and suture.... 31 Excision and ligation...336 Excision and clamp.... 3 Excision, clamp, and cautery.............. 33 Excision, ligation, and suture................ 40 Ligation................ 12 Ligation and excision... 44 Ligation and clamp.... 4 Incision and eversion... 4 Incision and evacuation of clot................ 23 Incision and suture.... 15 Whitehead's operation. 2 Pilcher's operation..... 3 Thewell-Thomas's operation................ 1 Allingham's operation with removal of polypus.................. 1 Cauterization.......... 1	Hemorrhoids.............	806	806	...	...	...	16	619	8	...	160	
Packing of rectum.........	Secondary hemorrhage after operation for hemorrhoids.	1	1	...	...	...	1	......	...	...	.....	
Anus dilated, bleeding point sutured.	Hemorrhage post-operative following appendectomy.	1	1	...	...	...	...	1	...	...	.....	
Subcutaneous division of nerves.	Pruritis ani...............	1	1	...	...	...	...	1	...	...	.....	
Excision................ 1 Excision and cautery.. 4 Excision and suture.... 1	Condylomata, circumanal .	6	6	...	...	...	...	4	...	...	2	
	GENITO-URINARY SYSTEM.											
Orchidectomy..............	Sarcoma of testicle........	1	1	...	...	...	...	......	...	...	.....	
Do....................	Chondroma...............	1	1	...	...	...	...	1	...	...	.....	
Do................. 2 Incision and drainage... 1	Orchitis..................	3	3	...	...	...	...	3	...	...	.....	
Orchidectomy..............	Tuberculous testicle.......	10	10	...	...	...	...	10	...	...	.....	
Do....................	Gangrene of testicle.......	1	1	...	...	...	...	1	...	...	.....	
Do....................	Atrophy of testicle........	1	1	...	...	...	...	1	...	...	.....	
Do................. 1 Epididymotomy....... 1	Epididymo-orchitis.......	2	2	...	...	...	...	1	1	...	.....	
Orchidectomy and resection of scrotum.	Tuberculous testicle and scrotum.	2	2	...	...	...	...	2	...	...	.....	
Bassini's method of scrotal implantation.. 1 Orchidectomy.......... 7 Scrotal implantation, method not stated.... 4	Undescended testicle......	12	12	...	...	...	...	11	...	...	1	
Excision portion of cord....	Tumor of spermatic cord...	1	1	...	...	...	...	1	...	...	.....	
Excision..................	Cyst of cord...............	1	1	...	...	...	...	1	...	...	.....	
Vesiculectomy.............	Vesiculitis................	1	1	...	...	...	...	1	...	...	.....	

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	GENITO-URINARY SYSTEM—continued.											
xcision of sac 30 version of sac 5 esection of sac 1 ottle operation 32 aboulay's operation 4 onguet's operaton 1 alkmann's operation 1 on Bergmann's operation 4 ncision and drainage 3 aracentesis 5 spiration 4 ncision of sac and suture 1 adical operation 1	Hydrocele	92	92	...	...	...	...	77	1	...	12	2
mputation of scrotum	Varicocele and orchitis	1	......	1	...	...	...	1	...	...	......	...
igation and excision 22 aricocelectomy, site not stated 50 esection of veins 9 igh excision 163 ow excision 48 ennett's operation 1 evan's operation 3 ncision and ligation 1 adical cure 1	Varicocele	298	298	...	...	...	2	237	9	...	50	...
ncision and drainage 14 pididymectomy 51 pididymotomy 147 agner's operation 1 ogan's operation 5	Epididymitis	218	218	...	...	...	2	195	...	8	13	...
vacuation of clot and ligation of veins 1 vacuation 1	Hematocele. 1 following a varicocelectomy.	2	2	...	...	...	...	2	...	...	......	...
ephrectomy	Tuberculous kidney	3	3	...	...	...	...	3	...	...	......	...
Do.	Pyonephrolithiasis	1	1	...	...	...	...	1	...	...	......	...
ephrolithotomy	Nephrolithiasis	3	3	...	...	...	...	3	...	...	......	...
ephrotomy 1 ephrectomy 1	Pyonephrosis	2	2	...	...	...	...	2	...	...	......	...
ephrotomy	Suspected pyonephrosis	1	1	...	...	...	...	1	...	...	......	...
Do.	Nephralgia, chronic	1	1	...	...	...	...	1	...	...	......	...
ephropexy	Floating kidney	1	1	...	...	...	...	1	...	...	......	...
xploration, drainage, and suture 1 ephrectomy 3	Rupture of kidney	4	4	...	...	...	...	4	...	...	......	...
ncision and drainage	Hydronephrosis	1	1	...	...	...	...	1	...	...	......	...
Do.	Perinephritic abscess	5	5	...	...	...	...	5	...	...	......	...
ncision and drainage with fixation	Cysts large, multilocular, kidney.	1	1	...	...	...	...	1	...	...	......	...
aparotomy, toilet of pelvis, peritoneum closed, and bladder drained through space of Retzius.	Rupture of bladder, traumatic, complicated with fracture of pelvis.	1	1	...	...	...	...	1	...	...	......	...
upra pubic cystotomy	Rupture of bladder, extraperitoneal.	1	1	...	...	...	...	1	...	...	......	...
Do.	Septic cystitis	2	2	...	...	...	...	2	...	...	......	...
Do.	Tumor of bladder	1	1	...	...	...	...	1	...	...	......	...
Do.	Foreign body in bladder	1	1	...	...	...	...	1	...	...	......	...
Do.	Retention of urine	1	1	...	...	...	...	......	...	...	1	...
Do.	Hypertrophy of prostate	8	8	...	...	...	...	8	...	...	......	...
upra-pubic cystotomy, and perineal section.	Rupture of deep urethra, and urinary infiltration.	1	1	...	...	...	...	1	...	...	......	...
rethrotomy and drainage.	Rupture of urethra, and urinary abscess.	1	......	...	...	1	...	1	...	...	......	...
rethrotomy, perineal	Rupture of urethra with perivesical hemorrhage.	1	1	...	...	...	...	1	...	...	......	...
Do.	Calculus, urethral, impacted.	1	1	...	...	...	...	1	...	...	......	...

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	GENITO-URINARY SYSTEM—continued.											
Urethrotomy, perineal. 2 Meatotomy and sounds 39 Urethrotomy, internal.. 6 Dilatation 2	Stricture of urethra.........	49	49	...	...	...	...	26	...	2	8	1
Meatotomy..................	Stricture of meatus.........	3	3	...	...	...	...	......	...	...	3	..
Plastic operation........ 1 Urethrotomy, internal.. 4	Fistula of penile urethra..	5	5	...	...	...	...	3	1	...	1	..
Incision and drainage......	Abscess of prostate.........	4	4	...	...	...	...	4	...	...	......	..
Do......................	Abscess, perineal...........	7	7	...	...	...	...	2	...	...	4	
Do......................	Abscess periurethral.......	23	23	...	...	...	...	7	...	3	12	
Plastic repair...............	Hypospadias.................	1	1	...	...	...	...	1	...	...	......	..
Circumcision................	Phimosis....................	703	702	1	...	...	14	121	...	26	542	..
Do......................	Paraphimosis...............	15	15	...	...	...	...	3	...	4	8	..
Do......................	Redundant prepuce........	120	120	...	...	...	1	33	...	...	86	..
Do......................	Venereal sore...............	15	15	...	...	...	1	5	...	5	4	..
Do......................	Balanitis....................	3	3	...	...	...	...	1	...	...	2	..
Do......................	Balanoposthitis............	6	6	...	...	...	...	2	...	...	4	..
Do......................	Herpes, preputial..........	1	1	...	...	...	...	1	...	...	......	..
Do......................	Papillomata................	1	1	...	...	...	...	......	...	...	1	..
Do......................	Lacerated prepuce........	1	1	...	...	...	...	1	...	...	......	..
Excision.....................	Hyperplasia frenum, following circumcision.	1	1	...	...	...	...	1	...	...	......	.
Do......................	Verruca progenitalis........	8	8	...	...	...	...	......	...	...	7	
Excision of sinuses and resection of stump of cord.	Multiple sinuses, scrotum after orchidectomy for tuberculous testicle.	1	1	...	...	...	...	1	...	...	......	.
Incision and drainage .. 1 Curettement........... 1 Excision and suture.... 2	Sinus of scrotum..........	4	4	...	...	...	...	3	...	...	1	.
Resection....................	Redundant scrotum........	1	1	...	...	...	...	1	...	...	......	.
Secondary plastic repair....	Sloughing of scrotal wound, post-operative.	1	1	...	...	...	1	......	...	...	......	.
Incision and drainage......	Abscess, scrotoperineal...	1	1	...	...	...	...	......	...	...	1	.
Do......................	Abscess of scrotum.........	1	1	...	...	...	...	1	...	...	......	.
	VASCULAR SYSTEM.											
Legation of vessel..........	Severed temporal artery...	1	1	...	...	...	...	......	...	...	......	
Do......................	Divided superficial palmar arch.	2	2	...	...	...	...	......	...	...	......	
Do......................	Lacerated wound of wrist..	2	2	...	...	...	...	2	...	...	......	.
Exploration, clot removed, and hemorrhage controlled.	False aneurism, caused by gunshot wound.	1	1	...	...	...	...	1	...	...	......	.
Ligation of femoral artery.	Aneurism of popliteal artery.	1	1	...	...	...	1	......	...	...	......	.
Multiple ligations..........	Aneurism of temporal artery, traumatic.	1	1	...	...	...	...	1	...	...	......	.
Do.................. 1 Excision................ 20 Excision and ligation... 31 Mayo's operation........ 8 Schede's operation..... 1 Resection.............. 5	Varicose veins.............	66	66	...	...	...	...	49	...	...	15	
Incision and drainage......	Thrombosis.................	1	1	...	...	...	1	......	...	...	......	.
Excision of veins...........	Cavernous angioma.......	1	1	...	...	...	...	1	...	...	......	.
	NERVOUS SYSTEM.											
Resection of tumor.........	Tumor of cerebrum........	1	1	...	...	...	...	1	...	...	......	.
Decompression and drainage.	Cerebral hemorrhage......	1	1	...	...	...	...	1	...	...	......	.
Subtemporal decompression	Subdural hemorrhage.....	1	1	...	...	...	...	1	...	...	......	.
Suturing of nerves.........	Severed median, musculospiral, and internal cutaneous nerves.	1	......	...	1	...	...	1	...	...	......	.

BLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and other.	Nitrous oxide.	Local.	None.
	NERVOUS SYSTEM—contd.											
eing by dissection of involve l branches of meium nerve.	Neuralgia, terminal branches of median nerve.	1	1	...	...	...	...	1	...	...	...	...
eing of nerve	Adherence of ulnar nerve to scar.	2	2	...	...	...	...	2	...	...	...	...
section from scar tissue	Pain, distribution ulnar nerve.	1	1	...	...	...	...	1	...	...	...	...
stic repair of structures	Neuragia, peroneal branches of sciatic nerve.	1	1	...	...	...	...	1	...	...	...	...
ploratory incisions, with njection of eucaine "B" olution into nerve sheath.	Neuritis, sciatic	1	1	...	...	...	...	...	...	...	1	...
	SKIN AND CELLULAR TISSUE.											
ettement and drainge 2 ision and dra nage 664 ision, curettement, n l drainage 6	Abscess	672	671	...	1	...	5	33	...	18	362	254
ltiple incisions, through nd through drainage.	Abscessed muscles entire leg following lymphangitis.	1	...	...	...	1	...	1	...	...	...	...
cision and drainage 18 ision and drainage 47 ltiple incisions and rainage 1 ision and curetteent 4	Carbuncle	70	69	...	...	1	1	8	...	...	...	35
ettement and drainge 2 ision and drainage 251 ltiple incision and rainage 3	Cellulitis	256	255	1	...	...	4	26	...	5	133	88
loration and drainage	Gas gangrene (aerogenes capsulatus).	1	...	...	...	1	...	...	...	...	...	1
cision V-shaped bit for athological examinaon.	Fordyce's disease	1	1	...	...	...	...	1	...	...	...	...
ision and drainage	Erysipelas	1	1	...	...	...	...	1	...	...	...	...
cision of sinus	Fistula, chronic, over coccyx.	1	1	...	...	...	...	1	...	...	...	...
ision and drainage	Sinus, persistent, coccygeal	1	1	...	...	...	...	1	...	...	...	...
sion, curettement, and rainage.	Sinus	2	2	...	...	...	1	...	...	...	1	...
ning sinus, and splintg leg.	Sinus thigh	1	1	...	...	...	...	1	...	...	...	...
cision	Pilonidal sinus	1	1	...	...	...	...	...	...	...	1	...
n grafting	Denuded area	2	2	...	...	...	...	2	...	...	...	...
ision	Ulcer	1	1	...	...	...	...	...	...	...	1	...
terization	Phagedenic ulcer	1	1	...	...	...	...	1	...	...	...	...
cision of ulcer and unerlying indurated tissue.	Persistent indolent ulcer	1	1	...	...	...	...	...	...	1	...	...
stic operation	Adherent scar, patella	1	1	...	...	...	...	1	...	...	...	...
ular incision and unermining scar.	Adherent scar	1	1	...	...	...	...	...	...	...	1	...
cision and suture	Painful scar	4	4	...	...	...	...	2	...	...	2	...
cision	Nevus	3	3	...	...	...	...	1	...	...	2	...
Do	Keloid	1	1	...	...	...	...	...	...	...	1	...
Do	Clavus and callous	14	14	...	...	...	...	1	...	...	9	4
Do 229 ting's operation 14 ler's operation 2 ulsion 70 tial excision 109 noval of nail, curetteent, and cauterizaon 11	Ingrowing toenail	435	433	2	...	...	5	15	...	10	387	18
cision	Deformed toenail	5	5	...	...	...	...	1	...	...	3	1
Do	Ingrowing finger nail	1	1	...	...	...	...	...	...	...	1	...
Do	Hypertrophy of nail	2	2	...	...	...	...	1	...	...	1	...

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on offic and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.
	LYMPHATIC SYSTEM.										
Adenectomy ... 278 Enucleation, subcuticular, and injection of iodoform emulsion ... 179 Incision and drainage ... 360 Incision and curettement. 37	Adenitis, inguinal, venereal	854	854				4	281		189	328
Do ... 70 Adenectomy ... 118 Enucleation, subcuticular, and injection of iodoform emulsion ... 11 Incision and drainage ... 83	Adenitis, inguinal, nonvenereal.	282	282				5	104	8	17	134
Dissection of gland	Adenitis cervical	1	1								1
Adenectomy ... 1 Incision and drainage ... 29	Adenitis nonvenereal, various locations.	30	30				1	3			23
Do ... 7 Excision of gland ... 5	Adenitis, nature and location not stated.	12	12					3			8
Multiple incisions ... 1 Incision, with through and through drainage. 1 Incision and drainage ... 21	Lymphangitis	23	20		3			2			15
Do	Adenitis, tuberculous	2	2					1			
	MUSCLES, TENDONS, FASCIÆ, LIGAMENTS, AND BURSÆ.										
Ligation and union	Ruptured ligament, elbow	1	1								1
Suturing of biceps	Incised wound of arm	1	1					1			
Suturing of flexor muscles	Laceration of forearm	1	1					1			
Tendon lengthened	Lacerated tendon, forearm.	1	1					1			
Suture of tendon ... 1 Anastomosis ... 2 Tendoplasty ... 6 Tenorrhaphy ... 7	Severed tendon	16	16					13			2
Do	Failure of union of severed tendon.	1	1					1			
Fascia cut and tendon lengthened.	Contraction of palmar fascia.	1			1			1			
Tenotomy ... 2 Tendon released ... 1	Contracted tendon	3	3					3			
Retroperitoneal division of muscle.	Contracture of psoas parvus.	1	1					1			
Tendoplasty of flexor profundus and sublimis.	Partial flexion, little finger.	1	1					1			
Transplantation of tendon and fascia for reuniting old severed flexor profundus and flexor sublimis.	Inability to flex ring finger.	1	1					1			
Transplantation of tendon	Loss of function flexor profundus.	1	1					1			
Repair of rupture	Hernia of fascia, and rupture of tendon.	1	1					1			
Suturing of muscle	Rupture of sartorius	1	1					1			
Loosening of adhesions	Adhesions, flexor tendons.	2	2				1	1			
Dissection and freeing tendons with interposition of fascia lata flaps.	Adhesions scar tissue of superficial tendons forearm.	1	1					1			
Adherent fascia incised. 1 Excision and freeing of adhesions ... 1	Adhesions scar tissue	2	2					2			
Excision and plastic repair of tendon.	Tuberculous granuloma tendon of flexor carpi radialis.	1	1						1		
Subcutaneous tenotomy	Spastic contraction tendo-Achilles.	1	1								

BLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	MUSCLES, TENDONS, FASCLÆ, LIGAMENTS, AND BURSÆ—continued.											
iotomy, extensor ten- on.	Overlapping toe	1	1					1				
ision and drainage	Tenosynovitis	2	2					1				1
Do	Myositis	1	1					1				
Do. 1 ision of sac 1	Thecitis	2	2					1			1	
cision of bursa	Bursa, traumatic	2	2								2	
iration 2 ision and drainage 11 ision and curette-ent. 3 ision 8 ision, evacuation and version of edges of ynovial sac 1	Bursitis	25	25					3	3		17	2
ision	Ganglion	8	8					4			4	
	BONES.											
ompression	Fracture of skull	7	4			3		6				1
noval of depressed rea 5 section of depressed one 1	Fracture of skull depressed	6	5			1		5				1
vation and fixation	Fracture of frontal bone	1	1					1				
ansing and packing	Fracture, compound orbital plate.	1	1				1					
niotomy	Fracture of skull, with dural hemorrhage.	1				1		1				
phining and removal epressed fragments outer ble.	Fracture, compound depressed parietal bone.	4	4				2	2				
niectomy and decompression 1 temporal decompression (Cushing) 1	Fracture base of skull	2	1			1		2				
phining and removal of epressed bone.	Fracture of skull, compound with laceration of dura and longitudinal sinus.	1	1					1				
phining 1 nal puncture for rainage 1 ision, removal of agments and cereral substance, and rainage 1	Fracture of skull	3	2			1	1	2				
ision of dead bone and nuses, suture and drainge.	Necrosis of skull, extensive.	1	1					1				
ision and wiring 4 ision and reduction 2 ring, and tying fragents with linen 1 ision and removal of itures 2	Fracture of clavicle	9	9					9				
ninectomy	Fracture, comminuted, cervical vertebrae.	1		1							1	
Do	Fracture and dislocation lumbar vertebrae.	1		1				1				
ision and removal of rojecting bone.	Faulty union after fracture of clavicle.	1	1					1				
luction and wiring	Fracture ununited, clavicle	1	1					1				
ision, border of scapula.	Traumatic curvature superior border of scapula.	1	1					1				

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on offic and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.
	BONES—continued.										
Excision	Cervical rib	1	1	...	...	...	..	1	...	...	....
Removal of fragments and suture.	Fracture, compound comminuted, humerus.	1	1	...	...	...	...	1	...	...	....
Incision, and removal of fragments.	Fracture external condyle, humerus.	1	1	...	...	...	...	1	...	...	....
Removal of Lane plate	Fracture, old, of humerus	1	1	...	...	...	...	1	...	...	....
Removal of capitellum	Fracture of capitellum	1	1	...	...	...	...	1	...	...	....
Application of Lane bone plate.	Fracture compound radius and ulna.	1	1	...	..	...	...	1	...	...	....
Reduction and suture of radial fragments 1 Intermedullary bone grafts 1	Fracture ununited radius and ulna.	2	2	...	.	...	...	2	...	...	....
Incision and removal of fragments.	Fracture of elbow	1	1	...	...	...	...	1	...	...	....
Incision reduction and plating.	Fracture of radius	1	1	...	...	...	...	1	...	...	....
Excision of fragments	Insertion fracture olecranon, ulna.	1	1	...	...	...	...	1	...	...	....
Incision, loosening, and replacement of fragment.	Epiphyseal separation with displacement distal end of radius.	1	1	...	...	...	...	1	...	...	....
Removal head of radius	Fracture lower end of radius.	1		1	...	...	...	1	...	...	....
Reduction, drilled, united	Fracture of radius	1	1	...	...	...	...	1	...	...	....
Lane plate applied to radius and ulna.	Colles' fracture	1	1	...	...	...	...	1	...	...	....
Excision of scaphoid 1 Excision of fragment 2	Fracture of carpal scaphoid	3	3	...	...	...	...	3	...	...	....
Thoracostomy, resection and drainage.	Fracture of rib, with laceration of pleura.	1	1	...	...	...	...	1	...	...	....
Application of Lane plate 1 Wiring 6	Fracture lower jaw (1 gunshot).	7	7	...	...	...	...	5	1	...	1
Freshening of fragments and wiring.	Fracture ununited, lower jaw.	1	1	...	...	...	...	1	...	...	....
Incision and wire suture 1 Incision and removal of suture 1	Fracture of pubic bone	2	2	...	...	...	...	2	...	...	....
Laparotomy and reduction.	Fracture of pelvis and rupture of bladder.	1	1	...	...	...	...	1	...	...	....
Application of Lane plate	Fracture of femur	5	4	...	...	1	...	5	...	...	....
Incision and drainage	Fracture, of femur, infected.	1	1	...	...	...	...	1	...	...	....
Surgical fracture, ends freshened, and application of Lane plate.	Fracture of femur, old, overlapping.	1	1	...	...	...	...	1	...	...	....
Excision of fragments	Gunshot fracture of femur.	1	1	...	...	...	...	1	...	...	....
Wiring of fragments 3 Incision and approximation of fragment 1	Fracture of patella	4	4	...	...	...	...	4	...	...	....
Open reduction and suture 1 Suture of periosteum 1	Fracture, compound of patella.	2	2	...	...	...	...	2	...	...	....
Reduction and removal of fragments 1 Fragments freshened, Lane plate applied 1 Removal of Lane plate 1 Wiring of fragments 1	Fracture compound, tibia and fibula.	4	4	...	...	...	...	4	...	...	....
Incision and replacement	Fracture compound transverse, tibia.	1	1	...	...	...	...	1	...	...	....

LE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	BONES—continued.											
tion of ends with ngaroo tendon.... 1 hening and wiring ends............... 1 transplant (inlay ich by 8 inches).... 1 hening ends and ring of fragments... 1 reduction and wir- tibia............... 2 oval of Lane plate. 1 ion and removal of e................. 1 plating........... 1	Fracture of tibia and fibula (3 old ununited).	9	9	...	...	...	...	8	...	1	...	...
oval of fragments l bullet............ 1 sion of diseased ne, and cast applied 1	Fracture of tibia, gunshot (1 old).	2	2	...	...	...	...	...	...	...	2	...
reduction and remov- of fragments.	Gunshot wound, leg and foot.	1	1	...	...	...	...	1	...	...	...	...
ng of fragments.... 1 ication of Lane te.............. 4 oval of Lane plate. 3	Fracture of tibia (3 old)....	8	8	...	...	...	...	8	...	...	...	...
ication of Lane te................ 3 oval of Lane plate. 2	Fracture, compound of tibia (2 old).	5	5	...	...	...	...	3	2	...	...	...
tion of steel pin ough oscalcis for ex- sion (Steinmann).	Fracture of tibia and fibula	2	2	...	...	...	...	2	...	...	...	...
ng internal malleolus tibia.	Potts fracture, ununited...	3	3	...	...	...	...	3	...	...	...	...
graft to replace defects	Deformity both bones, leg, site of old fracture.	2	2	...	...	...	...	2	...	...	...	...
ion and replacement...	Fracture fibula, with outer displacement.	1	1	...	...	...	...	1	...	...	...	...
oval detached bones, ntar surface.	Fracture, compound, comminuted foot.	1	1	...	...	...	...	1	...	...	...	...
action splinters of bone	Fracture, gunshot of foot..	1	1	...	...	...	...	...	...	...	...	1
otomy................	....	...	...	...	...	...	...	...	...	...	...	...
ring of union, reduc- n of overlapping, and ension.	Fracture of metacarpals (old).	2	2	...	...	...	...	2	...	...	...	...
reduction and re- val of fragments... 1 oval of fragments, ure and drainage.. 3	Fracture, compound of phalanx.	4	4	...	...	...	...	3	...	...	...	1
oval of fragments.....	Gunshot wound of phalanx.	2	2	...	...	...	...	1	...	...	1	...
ar incision and remov- of fragments.	Inability to flex index finger.	1	1	...	...	...	...	1	...	...	...	...
ction head second tatarsal.	Metatarsalgia............	1	1	...	...	...	...	1	...	...	...	...
sion..................	Calcaneal spurs..........	1	1	...	...	...	...	1	...	...	...	...
Do....................	Deformity head of radius..	1	1	...	...	...	...	1	...	...	...	...
graft..................	Fracture, mal-union, bone not stated.	1	1	...	...	...	...	1	...	...	...	...
tement................	Caries of tibia............	1	1	...	...	...	...	1	...	...	...	...
sion..................	Exostosis................	9	9	...	...	...	...	9	...	...	...	...
sion (chiseling).......	Osteoma................	1	1	...	...	...	1	...	...	...	...	...
sion portion of tibia l fibula............ 1 oval of dead bone.. 1 tement and drain- .... 15 sion of bone and us................. 1 ion and curette- nt................. 4	Necrosis.................	22	20	2	...	...	1	13	2	...	2	4

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on offic and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.
	BONES—continued.										
Sequestrotomy and curettement 1 Incision and drainage 2 Curettement 10 Removal of diseased phalanges 1	Osteomyelitis	14	12	2	...	...	...	12	...	...	1
Partial excision	Periostitis plantar surface os calcis.	1	1	...	...	...	...	1	...	...	....
Incision and drainage 18 Incision and curettement 7 Incision and removal of diseased tissue 1	Periostitis	26	25	1	...	...	...	17	...	...	5
Do	Osteoperiostitis tibia	1	1	...	...	...	...	1	...	...	....
Incision and drainage 1 Removal of sequestrum 1	Osteitis	2	2	...	...	...	...	2	...	...	....
	JOINTS.										
Incision of joint and repair of capsule 1 Capculorrhaphy, post-axillary route 1	Dislocation shoulder joint, habitual.	2	2	...	...	...	...	2	...	...	....
Incision anterior border of deltoid, capsule exposed and incised, edges overlapped and mattress suture.	Dislocation subcoracoid	1	......	1	...	...	...	1	...	...	....
Joint exposed, bones nailed, and tied with linen.	Dislocation of clavicle	1	1	...	...	...	...	1	...	...	....
Excision of bone	Dislocation and displacement of carpal semilunar.	1	1	...	...	...	...	1	...	...	....
Capsulorrhapy	Dislocation of patella	1	1	...	...	...	...	1	...	...	....
Arthrotomy and suture 1 Arthrotomy and removal 7	Dislocation semilunar cartilage, knee.	8	8	...	...	...	1	6	...	...	1
Do	Loose semilunar cartilage	1	1	...	...	...	...	1	...	...	....
Exposure of joint and removal of cartilage.	Floating cartilage, knee	2	2	...	...	...	...	......	...	...	2
Excision and removal	Fractured semilunar cartilage.	1	1	...	...	...	...	1	...	...	....
Exploration and removal	Foreign body knee-joint	2	2	...	...	...	...	1	...	...	1
Removal of loose body	Loose body in knee-joint	1	1	...	...	...	...	1	...	...	....
Incision and drainage	Infected wound knee-joint.	1	1	...	...	...	1	......	...	...	....
Excision semilunar cartilage	Sprain knee-joint	1	1	...	...	...	...	1	...	...	....
Do	Hyperplasia knee	1	1	...	...	...	...	1	...	...	....
Removal of villous bodies, and repair of synovial membrane.	Arthritis villous knee-joint	1	1	...	...	...	...	1	...	...	....
Excision and removal	Synovial fringes	1	1	...	...	...	...	1	...	...	...
Excision	Osteophyte knee-joint, with subpatellar lipoma.	1	1	...	...	...	...	1	...	...	...
Joint opened, and fragments of bone removed 1 Joint opened and bullet removed 1	Gunshot wound of knee	2	2	...	...	...	...	1	...	...	
Incision and removal	Loose fragment of bone from patella.	1	1	...	...	...	...	......	...	...	
Tenotomy anteriorly and replacement, with removal of bone fragments.	Dislocation, internal, of astragalus.	1	1	...	...	...	...	1	...	...	...
Excision of burse 1 Excision of exostosis 18 Excision head first metatarsal 3 Mayo's operation 21 Heller's operation 1 Murphy's operation 1 Tubby's operation 2	Hallux valgus	47	46	1	...	...	1	39	2	...	

ble No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	JOINTS—continued.											
ection metatarsal with iterposition of bursa. rposition of bursa.	Partial ankylosis following operation for bunion.	1	...	1	...	...	...	1	...	...	...	...
acentesis 2 hrotomy, irrigation ad closure 2 iration 8	Synovitis	12	12	...	...	...	1	1	...	...	5	5
Do	Synovitis hemorrhagic	1	1	...	...	...	...	...	...	...	...	1
shening surface of bone	Ankylosis	2	2	...	...	...	...	2	...	...	...	...
ision and drainage 1 iration 1 iration and injection f formalin glycerin 1	Arthritis (2 gonorrheal)	3	3	...	...	...	...	...	...	1	1	1
ection interphalaneal 5 cision of joint 1 ection head first phaanx 2	Hammer toe	8	8	...	...	...	...	3	...	...	5	...
	AMPUTATIONS.											
articulation shoulder int.	Gas gangrene arm	1	...	...	...	1	...	1	...	...	...	...
putation at shoulder	Cellulitis elbow and arm	1	...	...	...	1	...	1	...	...	...	...
putation, arm, junction pper and middle thirds.	Gangrene tissues of arm	1	1	...	...	...	...	1	...	...	...	...
putation, arm, middle iird.	Gunshot wound of arm	1	1	...	...	...	...	1	...	...	...	...
iputation, forearm, wer third.	Gunshot wound, forearm	1	1	...	...	...	...	1	...	...	...	...
iputation, forearm, wer third, secondary.	Traumatism	1	1	...	...	...	...	1	...	...	...	...
iputation, thigh, site ot stated.	Fracture of thigh	1	1	...	...	...	...	1	...	...	...	...
Do	Arthritis suppurative, knee.	1	1	...	...	...	...	1	...	...	...	...
iputation, thigh, upper iird.	Infection, thigh and leg, extensive.	1	1	...	...	...	...	1	...	...	...	...
Do	Gunshot wound	1	...	...	...	1	...	1	...	...	...	...
iputation, thigh, lower iird.	Gangrene of foot (Raynaud's disease).	1	1	...	...	...	...	1	...	...	...	...
iputation, leg, upper iird.	Gangrene of foot and lower leg.	1	...	1	...	...	...	1	...	...	...	...
Do	Gunshot wound of leg, infected.	1	1	...	...	...	...	1	...	...	...	...
Do	Gangrene of foot and lower leg following fracture.	1	...	1	...	...	...	1	...	...	...	...
iputation, leg, middle iird.	Fracture and gangrene	1	1	...	...	...	...	1	...	...	...	...
iputation, leg, lower iird.	Fracture of leg with gas infection.	1	...	1	...	...	...	1	...	...	...	...
stic flap, and trimming f bone.	Traumatic amputation of finger.	1	1	...	...	...	...	1	...	...	...	...
iputation of finger	Gunshot wound	27	27	...	...	...	3	15	1	...	8	...
Do	Lacerated wound	11	11	...	...	...	1	8	...	...	2	...
Do	Traumatic amputation	6	6	...	...	...	...	5	...	...	1	...
Do	Other traumatism	10	10	...	...	...	...	8	...	...	2	...
Do	Osteomyelitis	3	3	...	...	...	...	3	...	...	...	...
Do	Ankylosis	3	3	...	...	...	...	2	...	...	1	...
Do	Necrosis	2	2	...	...	...	...	2	...	...	...	...
Do	Painful stump	2	2	...	...	...	...	1	...	...	1	...
Do	Deformity	1	1	...	...	...	...	1	...	...	...	...
articulation, metacarpohalangeal.	Ankylosis	1	1	...	...	...	...	1	...	...	...	...
Do	Painful stump	1	1	...	...	...	...	1	...	...	...	...

TABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.
	AMPUTATIONS—continued.										
Disarticulation, thumb	Contused wound	1	1	...	...	...	...	1	...	...	...
Disarticulation, finger	Onychia	1	1	...	...	...	...	...	...	...	...
Amputation of toe	Crushing	5	5	...	...	...	...	5	...	...	...
Do	Gunshot wound	4	4	...	...	...	...	3	1	...	...
Do	Lacerated wound	2	2	...	...	...	...	2	...	...	...
Do	Traumatic amputation	1	1	...	...	...	...	1	...	...	...
Do	Overriding toe	4	4	...	...	...	...	4	...	...	...
Do	Hammer toe	23	23	...	...	...	1	15	...	...	7
Do	Deformed toe	3	3	...	...	...	...	3	...	...	...
Do	Necrosis	1	1	...	...	...	...	...	...	...	1
Do	Other disease	4	4	...	...	...	...	2	...	...	2
Plastic operation with amputation of three metatarso-phalangeal joints.	Traumatic amputation all toes, left foot.	1	1	...	...	...	1	...	...	...	...
	FOREIGN BODIES.										
Incision and extraction	Piece of steel in eye	1	1	...	...	...	...	1	...	...	...
Do	Piece of glass	4	4	...	...	...	...	2	...	...	2
Do	Needle (8 fragments in one case).	3	3	...	...	...	...	1	...	...	2
Do	Steel pin	1	1	...	...	...	...	...	...	...	1
Do	Splinter	3	3	...	...	...	...	...	...	...	3
Do	Fish bone in thumb	1	1	...	...	...	...	...	...	...	1
Esophagoscopy	Coin in esophagus	1	1	...	...	...	...	1	...	...	...
Extraction	Fish hook	2	2	...	...	...	...	...	...	...	2
Removal of bullet	Bullet in hand	5	5	...	...	...	...	4	...	...	1
Excision	Bullet in foot	1	1	...	...	...	...	1	...	...	...
Do	Bullet, fragments of, in leg	1	1	...	...	...	...	...	...	...	1
Incision and extraction	Bullet imbedded in thigh	1	1	...	...	...	...	1	...	...	...
Do	Retained bullet, sole of foot	1	1	...	...	...	...	...	...	...	1
Exploration and removal	Bullet imbedded in tibia	1	1	...	...	...	...	1	...	...	...
Removal of steel jacket	Steel jacket in leg	1	1	...	...	...	...	...	...	1	...
Incision and removal	Small piece of shell in chest	1	1	...	...	...	...	1	...	...	...
Extraction of shot	Two buckshot	1	1	...	...	...	...	...	...	...	...
Incision and exploration	Bullet in hand	1	...	...	...	1	...	1	...	...	...
Incision and extraction	Bullet	13	13	...	...	...	...	4	...	...	8
Extraction of bullet	Gunshot wound chest, retained bullet.	2	2	...	...	...	1	...	...	...	1
Do	Bullet in elbow	1	1	...	...	...	...	...	1	...	...
Do	Bullet in ankle	1	1	...	...	...	...	1	...	...	...
	TUMORS.										
Excision 2 Excision of clavicle and skin graft 1	Sarcoma	3	3	...	...	...	...	2	...	...	1
Excision	Carcinoma (1 recurrent)	4	4	...	...	...	...	3	...	...	1
Do 4 Excision, radical, epitrochlear and axillary glands 1	Epithelioma	5	5	...	...	...	...	2	...	...	3
Trephining and curettement of tibia.	Fibro-myxoma of tibia	2	1	1	...	...	1	1	...	...	...
Exploratory incision and ligation of veins. 1 Excision 4	Angioma	5	5	...	...	...	...	3	...	1	1
Do	Chondroma	3	3	...	...	...	...	1	...	...	2
Do	Dermoid cyst	2	2	...	...	...	...	2	...	...	...
Do	Fibroma	11	11	...	...	...	...	1	...	...	10
Partial amputation	Hypertrophy of breast	1	1	...	...	...	...	...	...	...	1
Excision	Hemangioma	1	1	...	...	...	...	...	...	...	1
Do	Hygroma	1	1	...	...	...	...	...	...	...	1
Do	Lipoma	29	28	...	...	1	1	12	...	...	15
Do	Myoma	1	1	...	...	...	...	1	...	...	...
Do	Neuroma	1	1	...	...	...	...	1	...	...	...

ABLE No. 66.—*Surgical operations performed by officers of the Medical Corps on officers and enlisted men of the Army during the calendar year 1916*—Continued.

Operation.	Disease or injury.	Cases.	Result.				Anesthetic.					
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Nitrous oxide.	Local.	None.
	TUMORS—continued.											
xcision... 7 xcision and cauterization... 2	Papilloma...	9	9	...	...	...	...	...	...	...	8	1
Do... 26 cision and curettement... 3 cision and drainage... 4 xcision... 54	Sebaceous cyst...	87	87	...	...	...	...	10	...	2	72	3
Do...	Tumor of breast, nature not stated.	1	1	...	...	...	...	1	...	...	...	...
Do...	Tumor, nature not stated.	2	2	...	...	...	...	1	...	...	1	...
cision and drainage...	Tumor, type undetermined	2	2	...	...	...	...	...	...	...	2	...
st removed...	Benign tumor, nature not stated.	2	2	...	...	...	...	...	...	...	2	...
xcision...	Hemorrhagic cyst...	1	1	...	...	...	...	...	1	...	...	...
Do...	Traumatic cyst...	1	1	...	...	...	...	1	...	...	...	...
	MISCELLANEOUS OPERATIONS.											
ultiple incisions and drainage... 1 cision and drainage... 25	Infected wound...	26	26	...	...	...	...	7	1	...	12	6
ide incision and drainage.	Infected wound (aerogenes capsulatus).	1	1	...	...	...	...	1	...	...	...	...
astic operation on great toe.	Condition not stated...	1	1	...	...	...	...	1	...	...	...	...
eansing, suturing, and drainage.	Lacerated wound...	22	22	...	...	...	...	2	...	...	4	16
cision and drainage...	Punctured wound...	2	2	...	...	...	...	...	...	...	2	...
xcision of cicatricial tissue.	Old contusion of foot...	1	1	...	...	...	...	1	...	...	...	...
esection...	Painful stump, metacarpal	1	1	...	...	...	...	...	...	...	1	...
nus curetted and dead bone removed.	Large scar with sinus from old gunshot wound.	1	1	...	...	...	...	1	...	...	...	...
turing and cleansing. 7 cision and drainage... 2 eansing and approximation muscles and skin... 1	Gunshot wound...	10	9	...	...	1	...	5	...	1	...	4
ture and drainage...	Incised wound...	30	30	...	...	...	...	1	...	...	4	25
cision and drainage...	Psoas abscess...	1	1	...	...	...	...	1	...	...	...	...
xcision of muscle specimens.	Trichinosis...	1	1	...	...	...	...	...	...	...	1	...
Total number of cases	...	10,129	10,027	31	9	52	99	4,947	97	318	3,968	700

TABLE 67.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1916, compared with the corresponding data for the year 1915, by races.*

ABSOLUTE NUMBERS.

		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly non-effective.
White troops	1916	93,625	70,180	58,245	11,935	1,516	1,324	192	474	240	234	1,990	1,564	426	950,643	2,597.39
	1915	87,458	65,171	53,387	11,784	1,259	1,129	130	404	220	184	1,663	1,349	314	820,537	2,248.05
Colored troops	1916	5,561	3,970	3,173	797	123	106	17	43	19	24	166	125	41	65,197	178.13
	1915	5,804	4,271	3,533	738	92	83	9	32	26	6	124	109	15	60,286	165.17
Porto Rican troops	1916	955	991	912	79	12	12	....	4	3	1	16	15	1	8,862	24.21
	1915	681	378	340	38	5	5	....	3	2	1	8	7	1	5,662	15.51
Philippine Scouts	1916	5,579	2,690	2,271	419	39	36	3	15	13	2	54	49	5	29,767	81.33
	1915	5,505	3,159	2,657	502	63	58	5	14	9	5	77	67	10	31,506	86.31

PROPORTIONATE NUMBERS.

[Ratios per 1,000 of mean strength.]

		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Constantly non-effective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
White troops	1916	93,625	749.59	622.11	127.48	16.19	14.14	2.05	5.06	2.56	2.50	21.25	16.70	4.55	39.17	10.15	13.54
	1915	87,458	745.17	610.43	134.74	14.16	12.70	1.46	4.54	2.47	2.07	18.70	15.17	3.53	25.70	9.38	12.59
Colored troops	1916	5,561	713.90	570.58	143.32	22.12	19.06	3.06	7.73	3.42	4.32	29.85	22.48	7.38	32.03	11.72	16.42
	1915	5,804	735.87	608.72	127.15	15.85	14.30	1.55	5.51	4.48	1.03	21.36	18.78	2.58	28.46	10.39	14.12
Porto Rican troops	1916	955	1,037.70	954.97	82.72	12.57	12.57	....	4.19	3.14	1.05	16.76	15.71	1.05	25.35	9.28	8.94
	1915	681	555.07	499.27	55.80	7.34	7.34	....	4.41	2.94	1.47	11.75	10.28	1.47	22.78	8.31	14.98
Philippne Scouts	1916	5,579	482.17	407.06	75.10	6.99	6.45	.54	2.69	2.33	.36	9.68	8.78	.90	14.58	5.34	11.06
	1915	5,505	573.84	482.65	91.19	11.44	10.53	.91	2.54	1.63	.91	13.98	12.16	1.82	15.68	5.72	9.97

for causes excluding injuries, venereal diseases, alcoholism, and vaccinia; also (on lower line) the ratios per 1,000 of mean strength for cases and deaths and for the number of men constantly sick in the year.

States.	Cases on sick report.		Deaths.		Total days treated and constantly sick (rate).		Important diseases.						
	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	Typhoid fever.	Paratyphoid fever.	Malaria.	Dysentery.	Tuberculosis.	Pneumonia.	Venereal.
Alabama:													
Number	2,994	2,370	9	8	16,224	11,163	5	....	247	5	16	61	285
Ratio	1,488.07	1,177.93	4.47	3.98	22.03	15.16	2.49	....	122.76	2.49	7.95	30.32	141.65
Arizona:													
Number	495	346	1	....	3,705	2,609	....	....	2	3	4	1	49
Ratio	925.24	646.73	1.87	....	18.92	13.32	....	....	3.74	5.61	7.48	1.87	91.60
Arkansas:													
Number	633	550	15	13	5,443	4,674	2	....	65	1	5	14	37
Ratio	1,055.00	916.67	25.00	21.67	24.79	21.28	3.33	....	108.33	1.67	8.33	23.33	66.67
California:													
Number	1,622	1,168	3	1	11,270	7,978	1	1	37	10	8	5	99
ColoRatio	1,090.79	785.47	2.02	.67	20.71	14.66	.67	.67	24.88	6.72	5.38	3.36	66.58
rado:													
Number	1,400	946	2	1	5,811	3,194	....	....	2	....	....	....	127
ConRatio	2,646.50	1,788.28	3.78	1.89	30.01	16.50	....	....	3.78	....	....	....	240.68
necticut:													
Number	1,489	1,218	1	1	6,959	5,055	....	1	21	2	....	1	70
Ratio	1,574.00	1,287.53	1.06	1.06	20.10	14.60	....	1.06	22.20	2.11	....	1.06	74.00
Delaware:													
Number	222	166	....	....	1,996	1,439	1	1	2	2	1	2	8
Ratio	787.23	588.65	....	....	19.34	13.94	3.55	3.55	7.09	7.09	3.55	7.09	28.37
District of Columbia:													
Number	740	432	1	....	4,555	2,587	....	1	6	1	2	2	172
Ratio	757.42	442.17	1.02	....	12.74	7.24	....	1.02	6.14	1.02	2.05	2.05	176.06
Florida:													
Number	731	610	3	....	5,100	4,125	....	....	11	1	1	8	44
Ratio	1,260.34	1,051.72	5.17	....	24.02	19.43	....	....	18.97	1.72	1.72	13.79	75.86
Georgia:													
Number	2,399	1,999	10	7	16,850	12,400	4	....	99	39	19	25	217
Ratio	1,318.13	1,098.35	5.49	3.85	25.30	18.62	2.20	....	54.40	21.43	10.44	13.74	119.23
Idaho:													
Number	1,013	863	4	3	6,668	5,438	1	1	1	....	2	1	52
Ratio	1,792.92	1,527.43	7.08	5.31	32.25	26.40	1.77	1.77	1.77	....	3.54	1.77	92.03

TABLE NO. 67½.—*By States showing for the National Guard (on upper line) the total cases, deaths, and days, for cases from all causes and separately, for causes excluding injuries, venereal diseases, alcoholism, and vaccinia; also (on lower line) the ratios per 1,000 of mean strength for cases and deaths and for the number of men constantly sick in the year*—Continued.

States.	Cases on sick report.		Deaths.		Total days treated and constantly sick (rate).		Important diseases.						
	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	Typhoid fever.	Paratyphoid fever.	Malaria.	Dysentery.	Tuberculosis.	Pneumonia.	Venereal.
Illinois:													
Number	3,020	1,883	5	2	20,074	11,682	4	5	73	5	12	18	532
Ratio	852.63	531.62	1.41	.56	15.48	9.01	1.13	1.41	20.61	1.41	3.39	5.08	150.20
Indiana:													
Number	2,004	1,540	6	2	14,324	10,619	2	2	50		12	4	208
Ratio	1,191.44	915.58	3.57	1.19	23.27	17.25	1.19	1.19	29.73		7.13	2.38	123.66
Iowa:													
Number	3,926	3,082	10	3	19,402	15,852	4	4	191	7	3	3	137
Ratio	1,682.09	1,320.48	4.28	1.29	22.71	18.56	1.71	1.71	81.83	3.00	1.29	1.29	58.70
Kansas:													
Number	882	543	1		4,521	2,576	1		7	1		1	65
Ratio	1,072.99	660.58	1.22		15.03	8.56	1.22		8.52	1.22		1.22	79.07
Kentucky:													
Number	809	535	1		6,529	3,298	1		4	7	6	4	115
Ratio	707.17	467.66	.87		15.59	7.88	.87		3.50	6.12	5.24	3.50	100.52
Louisiana:													
Number	1,199	1,029			6,927	6,158	1	17	112	4	4		22
Ratio	2,180.00	1,870.91			34.41	30.59	1.82	30.91	203.64	7.27	7.27		40.00
Maine:													
Number	448	403	2		2,169	1,787				52	2	1	1
Ratio	991.15	891.59	4.42		13.11	10.80				115.04	4.42	2.21	2.21
Maryland:													
Number	867	628			6,630	4,480	3		21	3	3		91
Ratio	740.39	536.29			15.47	10.45	2.56		17.93	2.56	2.56		77.71
Massachusetts:													
Number	2,461	1,881	3		16,885	12,109	3	1	3	37	2	3	117
Ratio	931.49	711.96	1.14		17.46	12.52	1.14	.38	1.14	14.00	.76	1.14	44.28
Michigan:													
Number	2,341	1,842	12	11	15,614	10,572	3		3	11	2	36	176
Ratio	1,158.34	911.43	5.94	5.44	21.11	14.29	1.48		1.48	5.44	.99	17.81	87.09

Ratio	1,605.72	1,119.24	1.59	1.59	19.86	10.70	....	....	310.02	8.18	1.59	3.18	211.45
Missouri:													
Number	1,211	940	3	1	7,828	5,653	....	....	11	3	1	3	82
Ratio	673.53	522.80	1.67	.56	11.90	8.59	....	....	6.12	1.67	.56	1.67	45.61
Montana:													
Number	218	160	2	2	1,459	484	....	....	....	20	4	....	36
Ratio	628.24	461.10	5.76	5.76	11.49	3.81	....	....	....	57.64	11.53	....	103.75
Nebraska:													
Number	1,262	1,066	1	....	8,247	6,777	....	....	49	4	7	2	14
Ratio	1,583.44	1,337.52	1.25	....	28.27	23.23	....	....	61.48	5.02	8.78	2.51	17.57
New Hampshire:													
Number	613	459	2	....	3,084	2,480	....	....	1	1	2	....	42
Ratio	956.32	716.07	3.12	....	15.70	10.57	....	....	1.56	1.56	3.12	....	65.52
New Jersey:													
Number	1,565	1,290	5	4	7,724	6,109	....	16	10	11	6	1	30
Ratio	1,365.62	1,125.66	4.36	3.49	18.42	14.56	....	13.96	8.73	9.60	5.24	.87	26.18
New Mexico:													
Number	495	341	3	2	4,671	2,969	1	1	3	1	5	6	62
Ratio	921.79	635.01	5.59	3.72	23.77	15.11	1.86	1.86	5.59	1.86	9.31	11.17	115.46
New York:													
Number	6,896	5,732	22	15	55,498	46,185	9	215	214	27	29	10	174
Ratio	932.40	775.01	2.97	2.03	20.50	17.06	1.22	29.07	28.93	3.65	3.92	1.35	23.53
North Carolina:													
Number	2,388	1,826	8	2	10,824	8,098	2	2	53	7	21	5	127
Ratio	1,390.80	1,063.48	4.66	1.16	17.22	12.89	1.16	1.16	30.87	4.08	12.23	2.91	73.97
North Dakota:													
Number	533	484	1	1	5,177	4,796	1	12	46	....	2	2	7
Ratio	1,117.40	1,014.67	2.10	2.10	29.65	27.47	2.10	25.16	96.43	....	4.19	4.19	14.67
Ohio:													
Number	3,128	2,453	9	8	18,836	12,739	2	....	....	41	12	16	216
Ratio	921.35	722.53	2.65	2.36	15.16	10.25	.59	....	....	12.08	3.53	4.71	63.62
Oklahoma:													
Number	723	582	2	....	5,850	4,615	2	6	76	1	3	2	48
Ratio	1,072.70	863.50	2.97	....	23.71	18.71	2.97	8.90	112.76	1.48	4.45	2.97	71.22
Oregon:													
Number	609	466	....	....	2,829	1,979	....	....	1	....	1	1	25
Ratio	1,701.12	1,301.68	....	....	21.59	15.11	....	....	2.79	....	2.79	2.79	69.83
Pennsylvania:													
Number	4,340	3,240	12	8	30,483	19,670	1	....	1	18	17	20	215
Ratio	739.23	551.87	2.04	1.36	14.19	9.15	.17	....	.17	3.07	2.90	3.41	36.62
Rhode Island:													
Number	275	214	2	1	1,712	1,385	1	....	5	7	1	1	6
Ratio	3,571.43	2,779.22	25.97	12.99	60.75	49.14	12.99	....	64.94	90.91	12.99	12.99	77.02
South Carolina:													
Number	777	565	5	5	6,070	4,134	2	1	13	18	2	9	116
Ratio	756.57	550.14	4.87	4.87	16.15	11.00	1.95	.97	12.66	17.53	1.95	8.76	112.95
South Dakota:													
Number	405	343	....	....	1,954	1,698	....	1	3	....	....	....	6
Ratio	861.70	729.79	....	....	11.36	9.87	....	2.13	6.38	....	....	....	12.77

TABLE No. 67½.—*By States showing for the National Guard (on upper line) the total cases, deaths, and days, for cases from all causes and separately, for causes excluding injuries, venereal diseases, alcoholism, and vaccinia; also (on lower line) the ratios per 1,000 of mean strength for cases and deaths and for the number of men constantly sick in the year*—Continued.

States.	Cases on sick report.		Deaths.		Total days treated and constantly sick (rate).		Important diseases.						
	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism and vaccinia.	Typhoid fever.	Paratyphoid fever.	Malaria.	Dysentery.	Tuberculosis.	Pneumonia.	Venereal.
Tennessee:													
Number	1,607	1,303	4	1	8,831	6,287	3		93	8	2	3	95
Ratio	1,594.24	1,292.66	3.97	.99	23.93	17.04	2.98		92.26	7.94	1.98	2.98	94.24
Texas:													
Number	3,217	2,434	6	3	28,166	19,595	2	2	103	8	25	9	381
Ratio	1,057.53	800.13	1.97	.99	25.30	17.60	.66	.66	33.86	2.63	8.22	2.96	125.25
Utah:													
Number	263	176	1		1,934	1,346			1			1	23
Ratio	829.65	555.21	3.15		16.67	11.60			3.15			3.15	72.56
Vermont:													
Number	100	64	2	1	887	506					1		16
Ratio	411.52	263.37	8.23	4.24	9.97	5.69					4.12		65.84
Virginia:													
Number	1,831	1,291	4	2	11,160	7,740	3	1	40	2	11	2	152
Ratio	1,166.24	822.29	2.55	1.27	19.55	13.56	1.91	.64	25.48	1.27	7.01	1.27	96.82
Washington:													
Number	805	631	1	1	4,257	3,382	1		1		1	3	40
Ratio	1,378.42	1,080.48	1.71	1.71	19.92	15.82	1.71		1.71		1.71	5.14	68.49
West Virginia:													
Number	601	308	5	3	5,316	2,596							211
Ratio	1,102.75	565.14	9.17	5.50	26.65	13.01							387.16
Wisconsin:													
Number	1,519	999	2		12,176	7,426	1		53		4	4	313
Ratio	718.88	472.79	.95		15.74	9.60	.47		25.08		1.89	1.89	148.13
Wyoming:													
Number	686	585	2	1	3,385	2,692			2		2	10	62
Ratio	2,823.05	2,407.41	8.23	4.12	38.06	30.27			8.23		8.23	41.15	255.14

Dec. 31, 1914, are placed in comparison with the year 1915. (See p. 370 for year 1916.)

	Decade, years 1905–1914. [Army—Enlisted American troops.]						The Army, 1915. [American troops, enlisted men.]					
Mean strength	S. G. O., 697,415—A. G. O., 709,271.						S. G. O., 93,262—A. G. O., 94,729.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	1,478	2.12	5	0.01	112	0.16	7	0.08				
Paratyphoid fever							6	.06				
Malaria	31,195	44.73	9	.01	34	.05	2,113	22.66			2	0.02
Estivo-autumnal fever	5,971	8.56			29	.04	535	5.74			2	.02
Malarial cachexia	378	.54	9	.01	1	.00	8	.09				
Quartan malarial fever	24,367	34.94			4	.01	15	.16				
Tertian malarial fever							1,421	15.24				
Undetermined malarial fever	479	.69					134	1.44				
Smallpox and varioloid	89	.13			5	.01	4	.04				
Vaccinia	13,345	19.13					371	3.98				
Measles	6,033	8.65	9	.01	75	.11	633	6.79	8	0.08	22	.23
Scarlet fever	91	.13			2	.00	50	.54			1	.01
Diphtheria	413	.59	1	.00	7	.01	61	.65			1	.01
Influenza	14,860	21.31			5	.01	3,196	34.27			4	.04
Asiatic cholera	36	.05			16	.02						
Cholera nostras	55	.08					1	.01				
Dysentery	5,247	7.52	97	.14	58	.08	183	1.96	5	.05	2	.02
Bacillary	508	.73	1	.00	17	.02	17	.18				
Entamoebic	3,018	4.33	86	.12	28	.04	138	1.48	5	.05	2	.02
Unclassified	1,721	2.47	10	.01	13	.02	28	.30				
Yellow fever	23	.03			6	.01						
Leprosy	2	.00	2	.00	1	.00						
Erysipelas	434	.62	1	.00	7	.01	23	.25	1	.01	1	.01
Dengue	10,211	14.64			1	.00	1,629	17.47				
German measles	1,181	1.69					75	.80				
Hemoglobinuric fever	7	.01			1	.00						
Mumps	7,812	11.20	1	.00			958	10.27				
Purulent infection and septicemia	92	.13	4	.01	46	.06	7	.08			7	.07
Tetanus	6	.01			4	.01						
Mycoses	27	.04					2	.02				
Beriberi	12	.02			3	.00						

TABLE No. 68.—*Admissions to sick report, discharges, and deaths, with ratios per 1,000 of mean strength, in which all available data for the decade ending Dec. 31, 1914, are placed in comparison with the year 1915. (See p. 370 for year 1916.)*—Continued.

	Decade, years 1905-1914. [Army—Enlisted American troops.]						The Army, 1915. [American troops, enlisted men.]					
Mean strength	S. G. O., 697,415—A. G. O., 709,271.						S. G. O., 93,262—A. G. O., 94,729.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Tuberculosis, all	2,899	4.16	1,846	2.60	351	0.49	328	3.52	170	1.79	31	0.33
Tuberculosis of lungs	2,515	3.61	1,729	2.44	286	.40	299	3.20	160	1.69	23	.24
Tuberculosis of other organs	384	.55	117	.16	65	.09	29	.31	10	.10	8	.08
Venereal diseases, all	114,253	163.82	1,355	1.91	43	.06	10,045	107.71	78	.82	6	.06
Syphilis	20,910	29.98	800	1.13	38	.05	1,992	21.36	47	.50	4	.04
Soft chancre	21,977	31.51	10	.01	1	.00	2,186	23.44	2	.02	....	....
Gonococcus infection	71,366	102.33	545	.77	4	.01	5,867	62.91	29	.31	2	.02
Cancer and other malignant tumors	142	.20	24	.03	59	.08	22	.24	5	.05	9	.10
Benign tumors	1,160	1.66	10	.01	5	.01	119	1.28	....	....	1	.01
Rheumatism, articular, all	7,764	11.13	206	.29	8	.01	542	5.82	19	.20	....	....
Acute articular rheumatism	4,969	7.13	15	.02	8	.01	451	4.84	5	.05	....	....
Chronic articular rheumatism	2,795	4.01	191	.27	....	....	91	.98	14	.15	....	....
Diabetes	138	.20	49	.07	20	.03	14	.15	2	.02	4	.04
Exophthalmic goiter	107	.15	51	.07	....	....	24	.26	10	.11	....	....
Alcoholism and results	16,169	23.18	174	.25	83	.12	1,294	13.87	24	.25	6	.06
Chronic occupational poisoning	41	.06	7	.01	....	....	4	.04	....	....	....	....
Other chronic poisoning, including drug habit	411	.59	114	.16	2	.00	44	.47	9	.10	....	....
Encephalitis	10	.01	....	....	8	.01	....	....	....	....	....	....
Simple meningitis	45	.06	5	.01	25	.04	2	.02	2	.02	1	.01
Epidemic cerebrospinal meingitis	149	.21	17	.02	76	.11	26	.28	7	.07	10	.11
Locomotor ataxia	34	.05	22	.03	1	.00	12	.13	3	.03	....	....
Other diseases of spinal cord	76	.11	56	.08	3	.00	9	.10	5	.05	1	.01
Cerebral hemorrhage, apoplexy	52	.07	12	.02	24	.03	8	.09	....	....	7	.07
Paralysis without specified cause	216	.31	31	.04	2	.00	25	.27	4	.04	....	....
Mental alienation	1,860	2.67	1,291	1.82	6	.01	358	3.82	313	3.30	5	.05
General paralysis of the insane	71	.10	52	.07	3	.00	14	.15	14	.15	4	.04
Dementia precox	1,106	1.59	879	1.24	2	.00	175	1.88	167	1.76	....	....
Other varieties of mental alienation	683	.98	360	.51	1	.00	169	1.79	132	1.39	1	.01
Epilepsy	1,211	1.74	465	.66	5	.01	114	1.22	65	.69	....	....
Neuralgia and neuritis	4,362	6.25	67	.09	1	.00	482	5.17	23	.24	....	....
Conjunctivitis, all	4,382	6.28	34	.05	....	....	385	4.13	2	.02	....	....
Trachoma	275	.39	44	.06	....	....	15	.16	1	.01	....	....
Other diseases of the eye	4,360	6.25	388	.55			540	5.79	21	.22	....	....

Organic heart disease	1,382	1.98	576	.81	140	.20	105	1.13	47	.50	22	.23
Angina pectoris	95	.14	12	.02	6	.01	10	.11	1	.01	2	.02
Diseases of the arteries, atheroma, aneurism, etc	143	.21	36	.05	47	.07	14	.15	4	.04	6	.06
Embolism and thrombosis	36	.05	10	.01	13	.02	3	.03	2	.02	1	.01
Hemorrhoids	5,016	7.19	8	.01			547	5.86				
Varicose veins	709	1.02	37	.05			63	.68	2	.02		
Variocele	2,290	3.28	15	.02			245	2.63	2	.02		
Diseases of the lymphatic system	4,669	6.69	1	.00			627	6.72	2	.02		
Diseases of the nasal fossae	12,321	17.67	49	.07			1,416	15.18	2	.02		
Diseases of the larynx	2,365	3.39			1	.00	235	2.52	1	.01		
Diseases of the thyroid body	128	.18	18	.03	2	.00	24	.26	7	.07		
Bronchitis	25,412	36.44	55	.08	5	.01	3,280	35.17	5	.05	1	.01
Broncho-pneumonia	256	.37			27	.04	53	.57	1	.01	6	.06
Pneumonia	1,517	2.18	8	.01	198	.28	225	2.41			29	.31
Pleurisy	1,969	2.82	48	.07	17	.02	259	2.78	7	.07	3	.03
Pulmonary congestion and pulmonary apoplexy	102	.15			4	.01	1	.01				
Asthma	1,004	1.44	85	.12			78	.84	14	.15		
Pulmonary emphysema	31	.04	9	.01	1	.00	2	.02				
Disease of the teeth and gums	5,742	8.23	71	.10			494	5.30	1	.01		
Other diseases of the mouth and annexa	606	.87	1	.00			84	.90				
Diseases of the pharynx	43,804	62.81	3	.00	3	.00	6,071	65.10	1	.01	1	.01
Ulcer of stomach	124	.18	15	.02	11	.02	23	.25	5	.05	1	.01
Other diseases of stomach (cancer excepted)	20,250	29.04	54	.08	6	.01	1,122	12.03	7	.07	2	.02
Diarrhea and enteritis	31,841	45.66	37	.05	15	.02	2,939	31.51	1	.01	4	.04
Ankylostomiasis	856	1.23	1	.00	1	.00	41	.44	1	.01		
Intestinal parasites	1,127	1.62					96	1.03				
Appendicitis	4,086	5.86	41	.06	86	.12	815	8.74	4	.04	12	.13
Hernia	3,007	4.31	310	.44	18	.03	353	3.79	19	.20	3	.03
Disease of the anus and fecal fistula	601	.86	6	.01			76	.81				
Other diseases of the intestines	16,216	23.29	38	.05	13	.02	2,772	29.72	6	.06		
Cirrhosis of liver	99	.14	15	.02	19	.03	5	.05	1	.01	1	.01
Biliary calculi	191	.27	2	.00	3	.00	9	.10	1	.01		
Other diseases of liver and gall bladder	2,744	3.93	21	.03	44	.06	389	4.17	2	.02	1	.01
Peritonitis	48	.07	3	.00	17	.02	1	.01			2	.02
Acute nephritis	248	.36	3	.00	37	.05	32	.34			6	.06
Bright's disease	442	.63	123	.17	74	.10	54	.58	12	.13	9	.10
Other diseases of the kidney and annexa	265	.38	18	.03	4	.01	27	.29	1	.01		
Diseases of the bladder	1,752	2.51	243	.34	1	.00	196	2.10	33	.35		
Diseases of the urethra	615	.88	4	.01			143	1.53	1	.01		
Diseases of the prostate	69	.10					15	.16	1	.01		
Diseases of the male genital organs (nonvenereal)	5,465	7.84	28	.04			403	4.32	1	.01		
Furuncle and carbuncle	17,244	24.73					1,625	17.42				
Acute abscess	9,004	12.91	9	.01			1,253	13.44	1	.01	2	.02
Diseases of the bones	1,187	1.70	83	.12	2	.00	236	2.53	6	.06	1	.01
Diseases of the joints	2,504	3.59	134	.19			382	4.10	23	.24		
Congenital malformations	1,960	2.81	568	.80			367	3.94	1	.01		
Senility	14	.02	9	.01			2	.02				
Febricula, simple continued, and other fevers of undetermined causation	3,925	5.63			1	.00	186	1.99				
Under observation, undiagnosed and unknown	4,437	6.36	22	.03	22	.03	79	.85			1	.01
Malingering	483	.69					35	.38				

TABLE No. 68.—*Admissions to sick report, discharges, and deaths, with ratios per 1,000 of mean strength, in which all available data for the decade ending Dec. 31, 1914, are placed in comparison with the year 1915. (See p. 370 for year 1916.)*—Continued.

	Decade, years 1905–1914. [Army—Enlisted American troops.]						The Army, 1915. [American troops, enlisted men.]					
Mean strength	S. G. O., 697,415—A. G. O., 709,271.						S. G. O., 93,262—A. G. O., 94,729.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
DISEASES AND INJURIES GROUPED.												
General diseases	239,772	343.80	4,005	5.65	974	1.37	22,101	236.98	337	3.56	98	1.03
Epidemic diseases	96,249	138.01	126	.18	330	.47	9,626	103.21	14	.15	33	.35
Other general diseases	143,523	205.79	3,879	5.47	644	.91	12,475	133.76	323	3.41	65	.69
Diseases of the nervous system and organs of special sense	25,958	37.22	3,109	4.38	163	.23	2,854	30.60	493	5.20	24	.25
Of the nervous system	11,629	16.67	2,304	3.25	156	.22	1,290	13.83	449	4.74	24	.25
Of the eye and its annexa	9,017	12.93	466	.66	....	....	940	10.08	24	.25	....	....
Of the ear and its annexa	5,312	7.62	339	.48	7	.01	624	6.69	20	.21	....	....
Diseases of the circulatory system	16,261	23.32	850	1.20	234	.33	1,739	18.65	64	.68	34	.36
Diseases of the respiratory system	45,585	65.36	285	.40	257	.36	5,600	60.04	38	.40	40	.42
Diseases of the digestive system	131,442	188.47	621	.88	251	.35	15,316	164.22	54	.57	30	.32
Diseases of the genito-urinary system	9,156	13.13	428	.60	118	.17	927	9.94	53	.56	16	.17
Diseases of the skin and cellular tissue	54,567	78.24	125	.18	3	.00	5,283	56.65	7	.07	2	.02
Diseases of the organs of locomotion	20,946	30.03	647	.91	2	.00	2,357	25,27	165	1.74	1	.01
Malformations, etc	1,960	2.81	568	.80	....	....	367	3.94	1	.01	....	....
Diseases, results of old age	14	.02	9	.01	....	....	2	.02	....	....	....	....
Ill-defined diseases	9,114	13.07	22	.03	23	.03	374	4.01	....	....	1	.01
Total for diseases	554,775	795.47	10,669	15.04	2,025	2.85	56,920	610.32	1,212	12.79	246	2.60
External causes	126,124	180.85	1,257	1.77	1,642	2.32	12,522	134.27	139	1.47	190	2.01
Total for disease and external causes	680,899	976.32	11,926	16.81	3,667	5.17	69,442	744.59	1,351	14.26	436	4.60

TABLE 68½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
Porto Rican, and Philippine troops

Serial Nos.	International classification.		Officers, Army.							
		Mean strength....................	S. G. O., 4,734—A. G. O., 5,155.							
		Causes of admission to sick report.	Admissions.		Retirements.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever..........................	5	1.06	......	......	2	0.39	0.61	0.1
2	1a	Paratyphoid fever..........................	4	.84	......	......	......	......	.39	.0
7-11	4	Malaria..........................	44	9.29	......	......	......	......	1.76	.3
7	....	Estivo-autumnal fever..........	10	2.11	......	......	......	......	.58	.1
8	....	Malarial cachexia..........	2	.42	......	......	......	......	.66	.1
9	....	Quartan malarial fever..........	......	......	......	......	......	......	......	......
10	....	Tertian malarial fever..........	27	5.70	......	......	......	......	.47	.1
11	....	Undetermined malarial fever..	5	1.06	......	......	......	......	.05	.0
12	5	Smallpox and varioloid..........	1	.21	......	......	......	......	.08	.0
13	5b	Vaccinia..........................	1	.21	......	......	......	......	.00	.0
14	6	Measles..........................	1	.21	......	......	......	......	.03	.0
15	7	Scarlet fever..........................	......	......	......	......	......	......	......	......
17	9	Diphtheria..........................	2	.42	......	......	......	......	.05	.0
18	10	Influenza..........................	245	51.75	......	......	1	.19	4.63	.9
19	12	Asiatic cholera..........................	......	......	......	......	......	......	......	......
20	13	Cholera nostras..........................	1	.21	......	......	......	......	.01	.0
21-23	14	Dysentery..........................	41	8.66	......	......	......	......	3.72	.7
21	....	Bacillary..........................	1	.21	......	......	......	......	.02	.0
22	....	Entamobic..........................	32	6.76	......	......	......	......	3.54	.7
23	....	Unclassified..........................	8	1.69	......	......	......	......	.16	.0
27	18	Erysipelas..........................	2	.42	......	......	......	......	.08	.0
29	19b	Dengue..........................	54	11.41	......	......	......	......	.92	.2
31	19d	German measles..........................	......	......	......	......	......	......	......	......
32	19e	Hemoglobinuric fever..........................	......	......	......	......	......	......	......	......
34	19g	Mumps..........................	5	1.06	......	......	......	......	.19	.
37	20	Purulent infection and septicemia..	2	.42	......	......	1	.19	.07	.
41	24	Tetanus..........................	......	......	......	......	......	......	......	......
42-46	25	Mycoses..........................	......	......	......	......	......	......	......	......
48	27	Beriberi..........................	......	......	......	......	......	......	......	......
49-57	28-34	Tuberculosis (all)..........................	13	2.75	3	.58	2	.39	7.55	1.
49-51	28	Tuberculosis of lungs..........................	11	2.32	3	.58	1	.19	6.87	1.4
52	29	Miliary tuberculosis, acute..........................	......	......	......	......	......	......	......	......
53-57	30-34	Tuberculosis of other organs..........	2	.42	......	......	1	.19	.69	.1
58	36	Scoliosis (rickets)..........................	......	......	......	......	......	......	......	......
59-74	37-38	Venereal diseases (all)..........................	16	3.38	......	......	......	......	1.87	.
59-64	37	Syphilis..........................	11	2.32	......	......	......	......	1.53	.
65-67	38a	Soft chancre..........................	......	......	......	......	......	......	......	......
68-74	38b	Gonococcus infection..........................	5	1.06	......	......	......	......	.34	.
75-79	39-45	Cancer and other malignant tumors	5	1.06	......	......	1	.19	1.53	.
80	46	Benign tumors..........................	5	1.06	......	......	......	......	.12	.
81-85	47-48	Rheumatism, articular (all)..........	15	3.17	......	......	......	......	1.14	.
81-82	47	Acute articular rheumatism..........	10	2.11	......	......	......	......	.73	.1
83-85	48	Chronic articular rheumatism......	5	1.06	......	......	......	......	.41	.
87-88	50	Diabetes..........................	1	.21	1	.19	......	......	.11	.
89	51	Exophthalmic goiter..........................	......	......	......	......	......	......	.17	.
97-100	56	Alcoholism and results..........................	17	3.59	......	......	......	......	.37	.
101-102	57-58	Chronic occupational poisoning....	......	......	......	......	......	......	......	......
103-104	59	Other chronic poisoning, including drug habit..........................	......	......	......	......	......	......	......	......
105-106	60	Encephalitis..........................	......	......	......	......	......	......	......	......
107	61	Simple meningitis..........................	1	.21	......	......	1	.19	.04	.
108	61a	Epidemic cerebrospinal meningitis.	......	......	......	......	......	......	......	......
109	62	Locomotor ataxia..........................	......	......	......	......	......	......	......	......
110-115	63	Other diseases of spinal cord..........	2	.42	......	......	......	......	.11	.
116	64	Cerebral hemorrhage, apoplexy....	4	.84	......	......	......	......	.40	.
117-119	66	Paralysis without specified cause..	2	.42	......	......	......	......	.59	.
120-126	67-68	Mental alienation..........................	11	2.32	......	......	......	......	2.36	.
127	69	Epilepsy..........................	3	.63	1	.19	......	......	.18	.
129-133	73	Neuralgia and neuritis..........................	34	7.18	1	.19	......	......	2.52	.
138-141	75a	Follicular conjunctivitis..........................	21	4.44	......	......	......	......	.45	.
142	75b	Trachoma..........................	......	......	......	......	......	......	......	......
166	77	Pericarditis..........................	......	......	......	......	......	......	......	......
167	78	Acute endocarditis..........................	......	......	......	......	......	......	......	......
169-174	79	Organic heart disease..........................	13	2.75	2	.39	1	.19	1.92	.
175	80	Angina pectoris..........................	1	.21	......	......	......	......	.19	.
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc..........................	9	1.90	7	1.36	2	.39	1.10	.

tios per 1,000 of mean strength, for the Army, separately for officers (including American,
nd grand total, year 1916.

Army, enlisted men (including Porto Rican troops and Philippine Scouts).								Army (entire), officers and enlisted men (including Porto Rican troops and Philippine Scouts).							
S. G. O., 105,720—A. G. O., 105,720.								S. G. O., 110,454—A. G. O., 110,875.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
20	0.19	......	......	1	0.01	3.54	0.03	25	0.23	......	......	3	0.03	4.15	0.04
110	1.04	......	......	......	......	10.75	.10	114	1.03	......	......	....	....	11.14	.10
2,564	24.25	......	......	1	.01	66.49	.63	2,608	23.61	......	......	1	.01	68.23	.62
640	6.05	......	......	1	.01	19.97	.19	650	5.88	......	......	1	01	20.55	.19
6	.06	......	......	......	......	1.39	.01	8	.07	......	......	....	....	2.05	.02
20	.19	......	......	......	......	.53	.01	20	.18	......	......	....	....	.53	.00
1,680	15.89	......	......	......	......	40.75	.39	1,707	15.45	......	......	....	....	41.22	.37
218	2.06	......	......	......	......	3.85	.04	223	2.02	......	......	....	....	2.90	.04
10	.09	......	......	1	.01	.67	.01	11	.10	......	......	1	.01	.75	.01
556	5.26	......	......	......	......	6.82	.06	557	5.04	......	......	....	....	6.83	.06
1,319	12.48	2	0.02	9	.09	56.50	.53	1,320	11.95	2	0.02	9	.08	56.51	.51
48	.45	......	......	3	.03	4.26	.04	48	.43	......	......	3	.03	4.26	.04
37	.35	......	......	......	......	2.52	.02	39	.35	......	......	....	....	2.57	.02
3,145	29.75	......	......	1	.01	46.28	.44	3,390	30.69	......	......	2	.02	50.90	.46
7	.07	......	......	1	.01	.60	.01	7	.06	......	......	1	.01	.60	.01
653	6.18	9	.09	10	.09	46.12	.44	494	6.28	9	.09	10	.09	49.83	.45
68	.64	......	......	1	.01	2.57	.02	69	.62	......	......	1	.01	2.59	.02
409	3.87	9	.09	8	.08	37.68	.36	441	3.99	9	.09	8	.07	41.21	.37
176	1.66	......	......	1	.01	5.86	.06	184	1.67	......	......	1	.01	6.02	.05
52	.49	......	......	1	.01	2.39	.02	54	.49	......	......	1	.01	2.47	.02
986	9.33	......	......	......	......	15.66	.15	1,040	9.42	......	......	....	....	16.59	.15
13	.12	......	......	......	......	.37	.00	13	.12	......	......	....	....	.37	.00
318	3.01	......	......	......	......	13.68	.13	323	2.92	......	......	....	....	13.87	.13
14	.13	......	......	10	.10	.90	.01	16	.14	......	......	11	.10	.97	.01
1	.01	......	......	......	......	.16	.00	1	.01	......	......	....	....	.17	.00
7	.07	......	......	......	......	.47	.00	7	.06	......	......	....	....	.47	.00
2	.02	......	......	......	......	.40	.00	2	.02	......	......	....	....	.39	.00
365	3.45	239	2.26	39	.37	179.71	1.70	378	3.42	239	2.26	41	.37	187.27	1.69
332	3.14	226	2.14	35	.33	170.68	1.61	343	3.11	226	2.14	36	.32	177.55	1.60
3	.03	3	.03	2	.02	.73	.01	3	.03	3	.03	2	.02	.72	.01
30	.29	10	.10	2	.02	8.31	.08	32	.30	10	.10	3	.03	8.99	.07
6	.06	1	.01	......	......	.45	.00	6	.01	1	.01	....	....	.45	.00
10,498	99.30	163	1.54	13	.12	572.50	5.41	10,514	95.18	163	1.54	13	.12	574.37	5.18
2,178	20.60	75	.71	12	.11	180.08	1.70	2,189	19.82	75	.71	12	.11	181.61	1.64
2,374	22.46	......	......	......	......	117.57	1.11	2,374	21.49	......	......	....	....	117.57	1.06
5,946	56.25	88	.83	1	.01	274.85	2.60	5,951	53.88	88	.83	1	.01	275.19	2.48
36	.34	4	.04	16	.15	6.81	.07	41	.37	4	.04	17	.15	8.02	.08
148	1.40	2	.02	......	......	5.98	.06	153	1.39	2	.02	....	....	6.10	.06
588	5.56	19	.18	1	.01	37.76	.36	603	5.46	19	.18	1	.01	38.90	.35
438	4.14	3	.03	1	.01	26.26	.25	448	4.06	3	.03	1	.01	26.99	.24
150	1.42	16	.15	......	......	11.50	.11	155	1.40	16	.15	....	....	11.90	.11
16	.15	9	.09	3	.03	2.30	.02	17	.15	9	.09	3	.03	2.41	.02
27	.26	21	.20	......	......	5.97	.06	27	.24	21	.20	....	....	6.14	.06
1,197	11.32	13	.12	3	.03	20.73	.20	1,214	10.99	13	.12	3	.03	21.10	.19
4	.04	1	.01	......	......	.52	.00	4	.04	1	.01	....	....	.52	.00
46	.44	3	.03	......	......	1.94	.02	46	.42	3	.03	....	....	1.94	.02
1	.01	......	......	1	.01	.02	.00	1	.01	......	......	1	.01	.02	.00
1	.01	1	.01	......	......	.13	.00	2	.02	1	.01	1	.01	.17	.00
23	.22	2	.02	11	.10	1.80	.02	23	.21	2	.02	11	.10	1.80	.02
18	.17	6	.06	1	.01	4.27	.04	18	.16	6	.06	1	.01	4.27	.04
7	.07	2	.02	......	......	1.54	.01	9	.08	2	.02	....	....	1.66	.01
4	.04	......	......	4	.04	.02	.00	8	.07	......	......	4	.04	.42	.00
32	.30	3	.03	1	.01	2.91	.03	34	.31	3	.03	1	.01	3.50	.03
375	3.55	276	2.61	4	.04	83.30	.79	386	3.49	276	2.61	4	.04	85.66	.77
149	1.41	75	.71	......	......	12.72	.12	152	1.38	75	.71	....	....	12.90	.12
585	5.53	27	.26	1	.01	31.43	.30	619	5.60	27	.26	1	.01	33.95	.31
571	5.40	3	.03	......	......	12.54	.12	592	5.36	3	.03	....	....	12.99	.12
17	.16	3	.03	......	......	.93	.01	17	.15	3	.03	....	....	.93	.01
7	.07	1	.01	1	.01	.59	.01	7	.06	1	.01	1	.01	.59	.01
6	.06	1	.01	2	.02	.74	.01	6	.05	1	.01	2	.02	.74	.01
170	1.61	57	.54	18	.17	19.85	.19	183	1.66	57	.54	19	.17	21.76	.20
9	.09	1	.01	1	.01	.59	.01	10	.09	1	.01	1	.01	.79	.01
20	.19	5	.05	4	.04	21.40	.02	29	.26	5	.05	6	.05	3.50	.03

TABLE 68½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
Porto Rican, and Philippine troop

Serial Nos.	International classification.	Mean strength	Officers, Army.							
			S. G. O., 4734—A. G. O., 5155.							
		Causes of admission to sick report.	Admissions.		Retirements.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
178-179	82	Embolism and thrombosis	......	......	......	......	......	......	0.17	0.
181	83b	Hemorrhoids	44	9.29	......	......	......	......	2.47	.
183	83d	Varicose veins	3	.63	......	......	......	......	.18	.
184	83e	Varicocele	2	.42	......	......	......	......	.06	.
185-187	84	Diseases of the lymphatic system	3	.63	......	......	......	......	.13	.
193-199	86	Diseases of the nasal fossæ	115	24.29	......	......	......	......	2.17	.
200-202	87	Diseases of the larynx	11	2.32	......	......	......	......	.07	.
203-204	88	Diseases of the thyroid body	2	.42	......	......	......	......	.49	.
205-206	89-90	Bronchitis	140	29.57	1	0.19	......	......	2.27	.
207	91	Broncho-pneumonia	5	1.06	......	......	2	.39	.27	.
208	92	Pneumonia	6	1.27	......	......	4	.78	.16	.
209-215	93	Pleurisy	9	1.90	......	......	......	......	.42	.
216-217	94	Pulmonary congestion and pulmonary apoplexy	......	......	......	......	......	......	......	......
219	96	Asthma	12	2.53	......	......	......	......	.53	.
220	97	Pulmonary emphysema	1	.21	......	......	......	......	.20	.
221	98a	Hemoptysis	......	......	......	......	......	......	......	......
222	98b	Hay fever	3	.63	......	......	......	......	.02	.
224-227	99a	Diseases of the teeth and gums	56	11.83	......	......	......	......	1.78	.
228-231	99b	Other diseases of the mouth and annexa	6	1.27	......	......	......	......	.12	.
232-236	100	Diseases of the pharynx	146	30.84	......	......	......	......	2.02	.
238	102	Ulcer of stomach	8	1.69	......	......	1	.21	.61	.
239-244	103	Other diseases of stomach (cancer excepted)	51	10.77	1	.19	......	......	.90	.
245-253	105	Diarrhea and enteritis	271	57.24	......	......	1	.19	7.61	1.
254	106	Ankylostomiasis	......	......	......	......	......	......	......	......
255-259	107	Intestinal parasites	2	.42	......	......	......	......	.03	.
266	108	Appendicitis	52	10.98	......	......	2	.39	4.41	.
261-263	109	Hernia	21	4.44	......	......	......	......	2.47	.
264-267	110a	Diseases of the anus and fecal fistula	6	1.27	......	......	......	......	.23	.
268-272	110b	Other diseases of the intestines	88	18.59	......	......	......	......	2.41	.
275	113	Cirrhosis of liver	......	......	1	.19	1	.19	.11	.
276	114	Biliary calculi	6	1.27	......	......	......	......	.38	.
277-281	115	Other diseases of liver and gall bladder	17	3.59	......	......	......	......	1.68	.
283-284	117	Simple peritonitis	......	......	......	......	......	......	......	......
288	119	Acute nephritis	......	......	......	......	......	......	......	......
289-291	120	Bright's disease	15	3.17	6	1.16	1	.19	3.47	.
293-299	122	Other diseases of the kidney and annexa	5	1.06	......	......	......	......	.41	.
303-306	124	Diseases of the bladder	5	1.06	......	......	......	......	.10	.
304	124b	Enuresis	......	......	......	......	......	......	......	......
307-309	125	Diseases of the urethra, urinary abscess, etc	4	.84	......	......	......	......	.19	.
310-312	126	Diseases of the prostate	4	.84	......	......	......	......	.26	.
313-319	127	Diseases of the male genital organs (nonvenereal)	12	2.53	......	......	......	......	1.12	.
322-323	143	Furuncle and carbuncle	18	3.80	......	......	......	......	.37	.
324-325	144	Acute abscess and cellulitis	30	7.60	......	......	......	......	.77	.
352-357	146	Diseases of the bones	20	4.22	......	......	......	......	1.59	.
358-360	147	Diseases of the joints	22	4.65	2	.39	......	......	2.04	.
367	147g	Flat foot	......	......	......	......	......	......	......	......
372	150	Congenital malformations	1	.21	......	......	......	......	.01	.
373-374	154	Senility	......	......	......	......	......	......	......	......
375	189Aa	Febricula, simple, continued, and other fevers of undetermined causation	15	3.17	......	......	......	......	.20	.
379	189Ba	Under observation, undiagnosed and unknown	8	1.69	......	......	......	......	.45	.
380	189Bb	Malingering	......	......	......	......	......	......	......	......

ios per 1,000 of mean strength, for the Army, separately for officers (including American,
l grand total, year 1916.—Continued.

rmy, enlisted men (including Porto Rican troops and Philippine Scouts). S. G. O., 105720—A. G. O., 105720.								Army (entire), officers and enlisted men (including Porto Rican troops and Philippine Scouts). S. G. O., 110454—A. G. O., 110875.							
dmissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
5	0.05			1	0.01	0.48	0.00	5	0.05			1	0.01	0.65	0.01
759	7.18	1	.01			24.17	.23	803	7.27	1	0.01			26.63	.24
91	.86	12	.11			7.39	.07	94	.85	12	.11			7.57	.07
226	2.14	1	.01			11.30	.11	228	2.06	1	.01			11.35	.10
844	7.98					49.82	.47	847	7.67					49.95	.45
439	13.61	2	.02			22.48	.21	1,554	14.07	2	.02			24.64	.22
182	1.72	1	.01	1	.01	3.24	.03	193	1.75	1	.01	1	.01	3.31	.03
36	.34	9	.09			4.58	.04	38	.34	9	.09			5.07	.05
556	33.64	5	.05			68.83	.65	3,696	33.46	5	.05			71.10	.64
51	.48			8	.08	3.85	.04	56	.51			10	.09	4.12	.04
221	2.09	3	.03	29	.27	16.32	.15	227	2.05	3	.03	33	.30	16.48	.15
346	3.27	8	.08			23.01	.22	355	3.21	8	.08			23.43	.21
12	.11			4	.04	.24	.00	12	.11			4	.04	.24	.00
117	1.11	13	.12			7.54	.07	129	1.17	13	.12			8.07	.07
2	.02	1	.01			.24	.00	3	.03	1	.01			.44	.00
11	.10					.33	.00	11	.10					.33	.00
4	.04					.28	.00	7	.06					.30	.00
650	6.15					10.85	.10	706	6.39					12.64	.11
99	.94					2.43	.02	105	.95					2.55	.02
683	53.76					84.81	.80	5,829	52.77					86.83	.78
25	.24	3	.03	2	.02	2.65	.03	33	.30	3	.03	3	.03	3.27	.03
236	11.69	11	.10			26.20	.25	1,287	11.65	11	.10			27.10	.24
157	48.79	4	.04	5	.05	66.03	.62	5,428	49.14	4	.04	6	.05	73.64	.66
61	.58					2.47	.02	61	.55					2.47	.02
135	1.28					2.22	.02	137	1.24					2.25	.02
996	9.42	3	.03	16	.15	71.22	.67	1.048	9.49	3	.03	18	.16	75.63	.68
489	4.63	37	.35	4	.04	48.60	.46	510	4.62	37	.35	4	.04	51.06	.46
92	.87					5.38	.05	98	.89					5.61	.05
121	29.52	19	.18	1	.01	44.14	.42	3.209	29.05	19	.18	1	.01	46.55	.42
10	.09	1	.01	1	.01	.86	.01	10	.09	1	.01	2	.02	.97	.01
18	.17					2.14	.02	24	.22			1	.01	2.52	.02
430	4.07	4	.04	4	.04	18.57	.18	447	4.05	4	.04	4	.04	20.25	.18
6	.06			4	.04	.43	.00	6	.05			4	.04	.43	.00
65	.61			7	.07	3.54	.03	65	.59			7	.06	3.54	.03
69	.65	18	.17	11	.10	12.92	.12	84	.76	18	.17	12	.11	16.39	.15
74	.70	6	.06	2	.02	8.78	.08	79	.72	6	.06	2	.02	9.19	.08
241	2.28	29	.27			10.60	.10	246	2.23	29	.27			10.70	.10
122	1.15	29	.27			6.46	.06	122	1.10	29	.27			6.46	.06
208	1.97					4.07	.04	212	1.92					4.26	.04
16	.15					.57	.01	20	.18					.83	.01
479	4.53	3	.03			16.24	.15	491	4.45	3	.03			17.36	.16
633	15.45			1	.01	28.87	.28	1,651	14.94			1	.01	29.23	.26
695	16.03	1	.01			46.36	.44	1,731	15.68	1	.01			47.13	.43
253	2.39	11	.10			21.40	.20	273	2.47	11	.10			22.99	.21
407	3.85	39	.37			34.39	.33	429	3.88	39	.37			36.43	.33
408	3.86	139	1.31			37.17	.35	408	3.69	139	1.31			37.17	.34
364	3.44	3	.03			12.13	.11	365	3.30	3	.03			12.14	.11
3	.03					.18	.00	3	.03					.18	.00
628	5.94					15.66	.15	643	5.82					15.86	.14
105	.99	1	.01	5	.05	5.04	.05	113	1.02	1	.01		5	5.49	.07
46	.44					1.97	.02	46	.42					1.97	.02

TABLE 68½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
Porto Rican, and Philippine troop

			Officers, Army.							
		Mean strength	S. G. O., 4734—A. G. O., 5155.							
Serial Nos.	International classification.	Causes of admission to sick report.	Admissions.		Retirements.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426–434	155–163	Suicides, all	.....	.....	.....	.....	4	.78	.....	.....
435	164	Poisoning by food	11	2.32	.....	.....	.....	.....	.....	.....
436	165a	Venomous bites and stings	3	.63	.....	.....	.....	.....	.....	.....
437	165b	Other poisoning (deleterious gases excepted)	2	.42	.....	.....	.....	.....	.....	.....
438	166	Conflagration	.....	.....	.....	.....	.....	.....	.....	.....
439	167	Burns (conflagrations excepted)	6	1.27	.....	.....	.....	.....	.....	.....
440	168	Absorption of deleterious gases	.....	.....	.....	.....	.....	.....	.....	.....
441	168a	Suffocation, strangulation	.....	.....	.....	.....	1	.19	.....	.....
442	169	Drowning, accidental	.....	.....	.....	.....	1	.19	.....	.....
443	170	Traumatism by firearms (other than specified)	4	.84	1	.19	.....	.....	.....	.....
444	170a	Shot by sentry or guard	.....	.....	.....	.....	.....	.....	.....	.....
445	171	Traumatism by cutting or piercing instruments	10	2.11	.....	.....	.....	.....	.....	.....
446	172	Traumatism by fall	95	20.07	.....	.....	2	.39	.....	.....
447	173	Traumatism in mines and quarries	.....	.....	.....	.....	.....	.....	.....	.....
448	174	Traumatism by machines	1	.21	.....	.....	.....	.....	.....	.....
449	175	Traumatism by other crushing	26	5.49	.....	.....	3	.58	.....	.....
450	176	Injuries by animals	26	5.49	.....	.....	.....	.....	.....	.....
451	177	Starvation	.....	.....	.....	.....	.....	.....	.....	.....
452	178	Effects of excessive cold	.....	.....	.....	.....	.....	.....	.....	.....
453	179	Effects of heat	5	1.06	.....	.....	.....	.....	.....	.....
454	180	Effects of lightning	.....	.....	.....	.....	.....	.....	.....	.....
455	181	Effects of electricity	.....	.....	.....	.....	.....	.....	.....	.....
456–458	182–4	Homicides, all	.....	.....	.....	.....	1	.19	.....	.....
459	185	Fractures, causes not specified	.....	.....	.....	.....	.....	.....	.....	.....
460	186	Other external violence	85	17.96	.....	.....	.....	.....	.....	.....
462–466	....	Killed or wounded in action	5	1.06	.....	.....	2	.39	.....	.....
462	....	By bullet	5	1.06	.....	.....	2	.39	.....	.....
463	....	By shell	.....	.....	.....	.....	.....	.....	.....	.....
464	....	By sword or bayonet	.....	.....	.....	.....	.....	.....	.....	.....
465	....	By bolo, kris, etc	.....	.....	.....	.....	.....	.....	.....	.....
466	....	By other weapon	.....	.....	.....	.....	.....	.....	.....	.....
		DISEASES AND INJURIES GROUPED.								
		General diseases	495	104.56	4	.78	8	1.55	25.54	
	1–19	Epidemic diseases	417	88.08	.....	.....	3	.58	12.52	
	20–59	Other general diseases	78	16.48	4	.78	5	.97	13.02	
		Diseases of the nervous system and organs of special sense	205	43.31	16	3.10	1	.19	16.46	
	60–74	Of the nervous system	121	25.56	12	2.33	1	.19	11.18	
	75	Of the eye and its annexa	63	13.31	3	.58	.....	.....	3.82	
	76	Of the ear and its annexa	21	4.44	1	.19	.....	.....	1.46	
	77–85	Diseases of the circulatory system	79	16.69	9	1.75	3	.58	6.25	
	86–98	Diseases of the respiratory system	304	64.22	1	.19	6	1.16	6.57	
	99–118	Diseases of the digestive system	731	154.42	2	.39	6	1.16	25.04	
	119–127	Diseases of the genito-urinary system	60	12.67	6	1.16	1	.19	6.37	
	142–145	Diseases of the skin and cellular tissue	102	21.55	.....	.....	1	.19	3.24	
	146–149	Diseases of the organs of locomotion	112	23.66	2	.39	.....	.....	5.97	
	150	Malformations, etc	1	.21	.....	.....	.....	.....	.01	
	154	Diseases, results of old age	.....	.....	.....	.....	.....	.....	.....	.....
	189	Ill-defined diseases	29	6.13	.....	.....	.....	.....	.71	
		Total for disease	2,118	447.40	40	7.76	26	5.04	96.16	
	155–186	External causes	290	61.26	5	.97	14	2.72	14.82	
		Total for disease and external causes	2,408	508.66	45	8.73	40	7.76	110.98	

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[1] Noneffectiveness for individual external causes not tabulated.

atios per 1,000 of mean strength, for the Army, separately for officers (including American, nd grand total, year 1916—Continued.

Army, enlisted men (including Porto Rican troops and Philippine Scouts).								Army (entire), officers and enlisted men (including Porto Rican troops and Philippine Scouts).							
S. G. O., 105720—A. G. O., 105720.								S. G. O., 110454—A. G. O., 110875.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
11	.10	......	......	61	.59	......	......	77	.10	......	......	65	.59	......	......
250	2.35	......	......	......	......	......	......	261	2.36	......	......	......	......	......	......
82	.78	......	......	......	......	......	......	85	.77	......	......	......	......	......	......
57	.54	......	......	5	.05	......	......	59	.53	......	......	5	.05	......	......
2	.02	......	......	3	.03	......	......	2	.02	......	......	3	.03	......	......
362	3.42	......	......	......	......	......	......	368	3.33	......	......	......	......	......	......
1	.01	......	......	2	.02	......	......	1	.01	......	......	2	.02	......	......
2	.02	......	......	1	.01	......	......	2	.02	......	......	2	.02	......	......
......	......	......	......	45	.43	......	......	......	......	......	......	46	.41	......	......
399	3.77	48	.45	24	.23	......	......	403	3.65	48	.45	24	.22	......	......
4	.04	2	.02	3	.03	......	......	4	.04	2	.02	3	.03	......	......
1,349	12.76	10	.09	......	......	......	......	1,359	12.30	10	.09	......	......	......	......
3,167	29.96	47	.44	11	.10	......	......	3,262	29.53	47	.44	13	.12	......	......
1	.01	......	......	1	.01	......	......	1	.01	......	......	1	.01	......	......
66	.62	2	.02	......	......	......	......	67	.61	2	.02	......	......	......	......
906	8.57	34	.32	26	.25	......	......	932	8.44	34	.32	29	.26	......	......
1,134	10.73	2	.02	3	.03	......	......	1,165	10.59	2	.02	3	.03	......	......
1	.01	......	......	......	......	......	......	1	.01	......	......	......	......	......	......
21	.20	......	......	......	......	......	......	21	.19	......	......	......	......	......	......
186	1.76	......	......	2	.02	......	......	191	1.73	......	......	2	.02	......	......
1	.01	1	.01	2	.02	......	......	1	.01	1	.01	2	.02	......	......
4	.04	......	......	1	.01	......	......	4	.04	......	......	1	.01	......	......
21	.11	......	......	30	.29	......	......	12	.11	......	......	31	.28	......	......
2	.02	......	......	......	......	......	......	2	.02	......	......	......	......	......	......
4,932	46.65	25	.24	7	.07	......	......	5,017	45.42	25	.24	7	.06	......	......
36	.34	4	.04	34	.32	......	......	41	.37	4	.04	36	.32	......	......
35	.33	4	.04	34	.32	......	......	40	.36	4	.04	36	.32	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1	.01	......	......	......	......	......	......	1	.01	......	......	......	......	......	......
3,505	222.33	495	4.68	114	1.08	1,126.22	10.65	24,000	217.28	495	4.68	122	1.10	1,151.76	10.39
0,253	96.98	16	.15	28	.26	283.98	2.69	10,670	95.59	16	.15	31	.28	296.50	2.67
3,252	125.35	479	4.53	86	.82	842.25	7.97	13,330	120.68	479	4.53	91	.82	855.27	7.71
3,367	31.86	483	4.57	23	.22	224.53	2.13	3,572	32.34	483	4.57	24	.22	240.99	2.17
1,504	14.23	422	3.99	23	.22	157.43	1.49	1,625	14.71	422	3.99	24	.22	168.61	1.52
1,154	10.92	34	.32	......	......	39.91	.38	1,217	11.02	34	.32	......	......	43.73	.39
709	6.71	27	.26	......	......	27.18	.26	730	6.61	27	.26	......	......	28.65	.26
2,314	21.89	86	.81	28	.26	124.92	1.18	2,393	21.66	86	.81	31	.28	131.17	1.18
5,997	56.73	42	.40	44	.42	151.43	1.43	6,301	57.04	42	.40	50	.45	158.00	1.42
8,217	172.32	84	.79	39	.37	390.19	3.69	18,948	171.55	84	.79	45	.41	415.24	3.74
1,209	11.44	60	.57	20	.19	60.04	.57	1,269	11.49	60	.57	21	.19	66.41	.60
5,978	56.55	12	.11	1	.01	154.90	1.47	6,080	55.05	12	.11	2	.02	158.14	1.43
2,757	26.08	211	2.00	......	......	144.00	1.36	2,869	25.97	211	2.00	......	......	149.97	1.35
364	3.44	3	.03	......	......	12.13	.11	365	3.30	3	.03	......	......	12.14	.11
3	.03	......	......	......	......	.18	.00	3	.03	......	......	......	......	.18	.00
830	9.42	1	.01	5	.05	24.21	.23	919	8.32	1	.01	5	.05	24.93	.22
4,601	611.06	1,477	13.97	274	2.59	2,412.76	22.82	66,719	604.04	1,477	13.97	300	2.71	2,508.92	22.63
3,230	125.14	212	2.01	261	2.47	468.30	4.43	13,520	112.40	212	2.01	275	2.48	483.1	4.36
7,831	736.20	1,689	15.98	535	5.06	2,881.06	27.25	80,239	726.45	1,689	15.98	575	5.19	2,992.05	26.99

TABLE No. 69.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit yea*

Serial Nos.	International classification.	Mean strength	Officers, Army.							
			S. G. O., 4,734—A. G. O., 5,155.							
		Causes of admission to sick report.	Admissions.		Retirements.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever	5	1.06	......	......	2	0.39	0.61	0.1
2	1a	Paratyphoid fever	4	.84	......	......	......	......	.39	.
7-11	4	Malaria	44	9.29	......	......	......	......	1.75	.
7	....	Æstivo-autumnal fever	10	2.11	......	......	......	......	.58	.
8	....	Malarial cachexia	2	.42	......	......	......	......	.66	.
9	....	Quartan malarial fever	......	......	......	......	......	......	......	....
10	....	Tertian malarial fever	27	5.70	......	......	......	......	.47	.
11	....	Undetermined malarial fever	5	1.06	......	......	......	......	.05	.
12	5	Smallpox and varioloid	1	.21	......	......	......	......	.08	.
13	5b	Vaccinia	1	.21	......	......	......	......	.00	.
14	6	Measles	1	.21	......	......	......	......	.03	.
15	7	Scarlet fever	......	......	......	......	......	......	......	....
17	9	Diphtheria	2	.42	......	......	......	......	.05	.
18	10	Influenza	245	51.75	......	......	1	.19	4.63	.
19	12	Asiatic cholera	......	......	......	......	......	......	......	....
20	13	Cholera nostras	1	.21	......	......	......	......	.01	.
21-23	14	Dysentery	41	8.66	......	......	......	......	3.72	.
21	....	Bacillary	1	.21	......	......	......	......	.02	.
22	....	Entamœbic	32	6.76	......	......	......	......	3.54	.
23	....	Unclassified	8	1.69	......	......	......	......	.16	.
27	18	Erysipelas	2	.42	......	......	......	......	.08	.
29	19b	Dengue	54	11.41	......	......	......	......	.92	.
31	19d	German measles	......	......	......	......	......	......	......	....
32	19e	Haemoglobinuric fever	......	......	......	......	......	......	......	....
34	19g	Mumps	5	1.06	......	......	......	......	.19	.
37	20	Purulent infection and septicæmia.	2	.42	......	......	1	.19	.07	.
41	24	Tetanus	......	......	......	......	......	......	......	....
42-46	25	Mycoses	......	......	......	......	......	......	......	....
48	27	Beriberi	......	......	......	......	......	......	......	....
49-57	28-34	Tuberculosis, all	13	2.75	......	......	2	.39	7.55	1.
49-51	28	Tuberculosis of lungs	11	2.32	......	......	1	.19	6.87	1.
52	29	Miliary tuberculosis, acute	......	......	......	......	......	......	......	....
53-57	30-34	Tuberculosis of other organs	2	.42	......	......	1	.19	.68	.
58	36	Scoliosis (rickets)	......	......	......	......	......	......	......	....
59-74	37-38	Venereal diseases, all	16	3.38	......	......	......	......	1.87	.
59-64	37	Syphilis	11	2.32	......	......	......	......	1.53	.
65-67	38a	Soft chancre	......	......	......	......	......	......	......	....
68-74	38b	Gonococcus infection	5	1.06	......	......	......	......	.34	.
75-79	39-45	Cancer and other malignant tumors	5	1.06	......	......	1	.19	1.53	.
80	46	Benign tumors	5	1.06	......	......	......	......	.12	
81-85	47-48	Rheumatism, articular, all	15	3.17	......	......	......	......	1.14	
81-82	47	Acute articular rheumatism	10	2.11	......	......	......	......	.73	
83-85	48	Chronic articular rheumatism	5	1.06	......	......	......	......	.41	
87-88	50	Diabetes	1	.21	......	......	......	......	.11	
89	51	Exophthalmic goiter	......	......	......	......	......	......	.17	
97-100	56	Alcoholism and results	17	3.59	......	......	......	......	.37	
101-102	57-58	Chronic occupational poisoning	......	......	......	......	......	......	......	....
103-104	59	Other chronic poisoning, including drug habit	......	......	......	......	......	......	......	....
105-106	60	Encephalitis	......	......	......	......	......	......	......	....
107	61	Simple meningitis	1	.21	......	......	1	.19	.04	
108	61a	Epidemic cerebrospinal meningitis.	......	......	......	......	......	......	......	....
109	62	Locomotor ataxia	......	......	......	......	......	......	......	....
110-115	63	Other diseases of spinal cord	2	.42	......	......	......	......	.11	
116	64	Cerebral hemorrhage, apoplexy	4	.84	......	......	......	......	.40	
117-119	66	Paralysis without specified cause	2	.42	......	......	......	......	.59	
120-126	67-68	Mental alienation	11	2.32	3	0.58	......	......	2.36	
127	69	Epilepsy	3	.63	1	.19	......	......	.18	
129-133	73	Neuralgia and neuritis	34	7.18	1	.19	......	......	2.52	
138-141	75a	Follicular conjunctivitis	21	4.44	......	......	......	......	.45	
142	75b	Trachoma	......	......	......	......	......	......	......	....
166	77	Pericarditis	......	......	......	......	......	......	......	....
167	78	Acute endocarditis	......	......	......	......	......	......	......	....
169-174	79	Organic heart disease	13	2.75	1	.19	1	.19	1.91	
175	80	Angina pectoris	1	.21	......	......	......	......	.19	
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	9	1.90	7	1.36	2	.39	1.10	
178-179	82	Embolism and thrombosis	......	......	......	......	......	......	.17	

tios per 1,000 of mean strength, for the Army, officers and American troops, for the '16.

American troops, Army.								Officers and American troops, Army.							
S. G. O., 105,720—A. G. O., 105,720.								S. G. O., 110,454—A. G. O., 110,875.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
20	0.20	......	......	1	0.01	3.54	0.04	25	0.24	......	......	[illegible]	0.03	4.14	0.04
110	1.11	......	......	......	......	10.73	.11	114	1.10	......	......	......	......	11.12	.11
,253	22.71	......	......	1	.01	58.53	.59	2,297	22.10	......	......	1	.01	60.29	.61
534	5.38	......	......	1	.01	16.57	.17	544	5.23	......	......	1	.01	17.15	.17
4	.04	......	......	......	......	1.30	.01	6	.06	......	......	......	......	1.96	.02
17	.17	......	......	......	......	.46	.00	17	.16	......	......	......	......	.46	.00
,489	15.01	......	......	......	......	36.53	.37	1,516	14.59	......	......	......	......	37.00	.37
209	2.11	......	......	......	......	3.66	.04	214	2.06	......	......	......	......	3.71	.04
1	.01	......	......	......	......	.03	.00	2	.02	......	......	......	......	.11	.00
547	5.51	......	......	......	......	6.49	.07	548	5.27	......	......	......	......	6.49	.01
,314	13.25	2	0.02	9	.09	56.13	.57	1,315	12.65	2	.02	9	.09	56.16	.57
48	.48	......	......	3	.03	4.25	.04	48	.46	......	......	3	.03	4.26	.04
37	.37	......	......	......	......	2.52	.03	39	.38	......	......	......	......	2.57	.03
,880	29.04	......	......	1	.01	42.67	.43	3,125	30.07	......	......	2	.02	47.30	.48
5	.05	......	......	......	......	.47	.00	5	.05	......	......	......	......	.47	.00
......	......	......	......	......	......	......	......	1	.01	......	......	......	......	.01	.00
621	6.23	9	.09	10	.10	44.72	.45	662	6.37	9	.09	10	.10	48.44	.49
52	.52	......	......	1	.01	1.71	.02	53	.52	......	......	1	.01	1.73	.02
399	4.02	9	.09	8	.08	37.27	.38	431	4.15	9	.09	8	.08	40.80	.41
170	1.71	......	......	1	.01	5.74	.06	178	1.71	......	......	1	.01	5.90	.07
51	.51	......	......	1	.01	2.38	.02	53	.52	......	......	1	.01	2.45	.02
903	9.10	......	......	......	......	13.68	.14	957	9.21	......	......	......	......	14.60	.15
13	.13	......	......	......	......	.37	.00	13	.13	......	......	......	......	.37	.00
289	2.91	......	......	......	......	12.46	.13	294	2.83	......	......	......	......	12.65	.13
12	.12	......	......	10	.10	.53	.01	14	.14	......	......	11	.11	.63	.01
7	.07	......	......	......	......	.47	.00	7	.07	......	......	......	......	.47	.00
343	3.46	218	2.20	38	.38	177.35	1.79	356	3.43	218	2.20	40	.38	184.91	1.86
311	3.14	207	2.09	34	.34	168.48	1.70	322	3.10	207	2.09	35	.34	175.35	1.77
3	.03	1	.01	2	.02	.72	.01	3	.03	1	.01	2	.02	.72	.01
29	.29	10	.10	2	.02	8.15	.09	31	.31	10	.10	3	.03	8.84	.09
6	.06	1	.01	......	......	.45	.00	6	.06	1	.01	......	......	.45	.00
,251	103.35	159	1.60	13	.13	557.72	5.62	10,267	98.80	159	1.60	13	.12	559.59	5.64
,119	21.35	73	.74	12	.12	175.65	1.77	2,130	20.50	73	.74	12	.12	177.18	1.79
,337	23.56	......	......	......	......	115.89	1.17	2,337	22.49	......	......	......	......	115.89	1.17
,795	58.42	86	.87	1	.01	206.19	2.68	5,800	55.81	86	.87	1	.01	206.53	2.69
32	.32	4	.04	13	.13	6.49	.07	37	.36	4	.04	14	.13	8.12	.08
137	1.38	2	.02	......	......	5.05	.05	142	1.37	2	.02	......	......	5.17	.05
565	5.69	18	.18	1	.01	36.50	.37	580	5.58	18	.18	1	.01	37.64	.38
418	4.21	3	.03	1	.01	25.36	.26	428	4.12	3	.03	1	.01	26.09	.26
147	1.48	15	.15	......	......	11.14	.11	152	1.46	15	.15	......	......	11.55	.12
16	.16	9	.09	3	.03	2.30	.02	17	.16	9	.09	3	.03	2.41	.02
27	.27	21	.21	......	......	5.97	.06	27	.26	21	.21	......	......	6.13	.06
,190	12.00	13	.13	3	.03	20.70	.21	1,207	11.61	13	.13	3	.03	21.08	.21
4	.04	1	.01	......	......	.52	.01	4	.04	1	.01	......	......	.52	.00
46	.46	3	.03	......	......	1.94	.02	46	.44	3	.03	......	......	1.94	.04
1	.01	......	......	1	.01	.02	.00	1	.01	......	......	1	.01	.02	.00
1	.01	1	.01	......	......	.13	.00	2	.02	1	.01	1	.01	.17	.00
20	.20	2	.02	9	.09	1.03	.02	20	.19	2	.02	9	.09	1.03	.02
16	.16	5	.05	1	.01	4.07	.04	16	.15	5	.05	1	.01	4.07	.04
6	.06	2	.02	......	......	1.12	.01	8	.08	2	.02	......	......	1.23	.01
4	.04	......	......	4	.04	.02	.00	8	.08	......	......	4	.04	.42	.00
32	.32	3	.03	1	.01	2.91	.03	34	.33	3	.03	1	.01	3.50	.04
369	3.72	271	2.72	4	.04	82.44	.83	380	3.66	271	2.73	[illegible]	.03	84.80	.85
145	1.46	75	.76	......	......	12.67	.13	148	1.42	75	.76	......	......	12.85	.13
567	5.72	27	.27	1	.01	31.15	.31	601	5.78	27	.27	1	.01	33.07	.34
494	4.98	3	.03	......	......	11.17	.11	515	4.96	3	.03	......	......	11.62	.12
13	.13	3	.03	......	......	.81	.01	13	.13	3	.03	......	......	.81	.01
7	.07	1	.01	1	.01	.59	.01	7	.07	1	.01	1	.01	.59	.01
6	.06	1	.01	2	.02	.74	.01	6	.06	1	.01	2	.02	.74	.01
107	1.08	56	.56	17	.17	19.56	.20	180	1.73	56	.56	18	.17	21.48	.22
9	.09	1	.01	1	.01	.60	.01	10	.10	1	.01	1	.01	.79	.01
19	.19	5	.05	4	.04	2.35	.02	28	.27	5	.05	6	.06	3.45	.03
5	.05	......	......	1	.01	.48	.00	5	.05	......	......	1	.01	.64	.01

TABLE 69.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
the yea

Serial Nos.	International classification.	Mean strength	Officers, Army.							
			S. G. O., 4,734—A. G. O., 5,155.							
		Causes of admission to sick report.	Admissions.		Retirements.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
181	83b	Hemorrhoids	44	9.29	......	......	......	......	0.52	0.
183	83d	Varicose veins	3	.63	......	......	......	......	.18	.
184	83e	Varicocele	2	.42	......	......	......	......	.06	.
185-187	84	Diseases of the lymphatic system	3	.63	......	......	......	......	.13	.
193-199	86	Diseases of the nasal fossæ	115	24.29	......	......	......	......	2717	.
200-202	87	Diseases of the larynx	11	2932	......	......	......	......	.07	.
2039204	88	Diseases of the thyroid body	2	.42	......	......	......	......	.49	.
205-206	89-90	Bronchitis	140	29.57	1	.19	......	......	2727	.
207	91	Broncho-pneumonia	5	1.06	......	......	2	.39	.27	.
208	92	Pneumonia	6	1727	......	......	4	.78	.16	.
209-215	93	Pleurisy	9	1.90	......	......	......	......	.42	.
216-217	94	Pulmonary congestion and pulmonary apoplexy	......	......	......	......	......	......	......	......
219	96	Asthma	12	2.53	......	......	......	......	.53	.
220	97	Pulmonary emphysema	1	.21	......	......	......	......	.20	.
221	98a	Hemoptysis	......	......	......	......	......	......	......	......
222	98b	Hay fever	3	.63	......	......	......	......	.02	.
224-227	99a	Diseases of the teeth and gums	56	11.83	......	......	......	......	1.78	.
228-231	99b	Other diseases of the mouth and annexa	6	1.27	......	......	......	......	.12	.
232-236	100	Diseases of the pharynx	146	30.84	......	......	......	......	2.02	.
238	102	Ulcer of stomach	8	1.69	......	......	1	521	.61	.
239-244	103	Other diseases of stomach (cancer excepted)	51	10.77	1	.19	......	......	.99	.
245-253	105	Diarrhea and enteris	271	57.24	......	......	1	.19	7.61	1.
254	106	Ankylostomiasis	......	......	......	......	......	......	......	......
255-259	107	Intestinal parasites	2	.42	......	......	......	......	.03	.
260	108	Appendicitis	52	10.98	......	......	2	.39	4.41	.
261-263	109	Hernia	21	4.44	......	......	......	......	2.47	.
264-267	110a	Diseases of the anus and fecal fistula	6	1.27	......	......	......	......	.23	.
268-272	110b	Other diseases of the intestines	88	18.56	......	......	......	......	2.41	.
275	113	Cirrhosis of liver	......	......	1	.19	1	.19	.11	.
276	114	Biliary calculi	6	1.27	......	......	......	......	.38	.
2779281	115	Other diseases of liver and gall bladder	17	3.59	......	......	......	......	1.68	.
283-284	117	Simple peritonitis	......	......	......	......	......	......	......	......
288	119	......	......	......	......	......	......	......	......	......
289-291	120	Bright's disease	15	3.17	6	1.16	1	.19	3547	
293-299	122	Other diseases of the kidney and annexa	5	1.06	......	......	......	......	.41	
303-306	124	Diseases of the bladder	5	1.06	......	......	......	......	.10	
304	124b	Enuresis	......	......	......	......	......	......	......	......
307-309	125	Diseases of the uretha, urinary abscesses, etc	4	.84	......	......	......	......	.19	
310-312	126	Diseases of the prostate	4	.84	......	......	......	......	.26	
313-319	127	Diseases of the male genital organs (nonvenereal)	12	2.53	......	......	......	......	1.19	
322-323	143	Furuncle and carbuncle	18	3.80	......	......	......	......	.37	
324-325	144	Acute abscess and cellulitis	30	7.60	......	......	......	......	.77	
352-357	146	Diseases of the bones	20	4.22	......	......	......	......	1.59	
358-360	147	Disease of the joints	22	4.65	2	.39	......	......	2.04	
367	147g	Flat foot	......	......	......	......	......	......	......	......
372	150	Congenital malformations	1	.21	......	......	......	......	.01	
373-374	154	Senility	......	......	......	......	......	......	......	......
375	189Aa	Febricula, simple, continued, and other fevers of undetermined causation	15	3.17	......	......	......	......	720	
379	189Ba	Under observation, undiagnosed and unknown	8	1.69	......	......	......	......	.45	
380	189Bb	Malingering	......	......	......	......	......	......	......	......
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426-434	155-163	Suicides, all	......	......	......	......	4	.78	......	......
435	164	Poisoning by food	11	2.32	......	......	......	......	......	......
436	165a	Venomous bites and stings	3	.63	......	......	......	......	......	......
437	165b	Other poisoning (deleterious gases excepted)	2	.42	......	......	......	......	......	......

[1] Noneffectiveness for individual external causes not tabulated.

atios per 1,000 of mean strength, for the Army, officers and American troops, for 916—Continued.

American troops, Army.								Officers and American troops, Army.							
S. G. O., 105,720—A. G. O., 105,720.								S. G. O., 110,454—A. G. O., 110,875.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
750	7.50	1	0.01	....	......	23.94	0.24	794	7.64	1	0.01	....	....	26.40	0.27
89	.90	12	.12	....	......	7.31	.07	92	.89	12	.12	....	....	7.49	.08
225	2.27	1	.01	....	......	11.27	.11	227	2.18	1	.01	....	....	11.33	.11
810	8.17	......	......	....	......	48.09	.48	813	7.82	......	......	....	....	48.21	.49
1,361	13.72	2	.02	....	......	21.38	.22	1,476	14.20	2	.02	....	....	23.55	.24
178	1.79	1	.01	1	.01	3.16	.03	189	1.82	1	.01	1	.01	3.22	.03
36	.36	9	.09	....	......	4.58	.05	38	.37	9	.09	....	....	5.07	.05
3,361	33.88	5	.05	....	......	64.44	.65	3,501	33.69	5	.05	....	....	66.71	.67
49	.49	......	......	8	.08	3.73	.04	54	.52	......	......	10	.10	4.01	.04
205	2.07	3	.03	28	.28	15.21	.15	211	2.03	3	.03	32	.31	15.40	.16
336	3.39	8	.08	....	......	22.36	.23	345	3.32	8	.08	....	....	22.78	.23
5	.05	......	......	2	.02	.10	.00	5	.05	......	......	2	.02	.10	.00
104	1.05	12	.12	....	......	6.75	.07	116	1.12	12	.12	....	....	7.28	.07
2	.02	1	.01	....	......	.24	.00	3	.03	1	.01	....	....	.44	.00
10	.10	......	......	....	......	.27	.00	10	.10	......	......	2	.02	.27	.00
4	.04	......	......	....	......	.28	.00	7	.07	......	......	....	....	.30	.00
625	6.30	......	......	....	......	10.47	.11	681	6.55	......	......	....	....	12.25	.12
95	.96	......	......	....	......	2.37	.02	101	.97	......	......	....	....	2 49	.03
5,600	56.46	......	......	....	......	83.64	.84	5,746	55.30	......	......	....	....	85.66	.86
25	.25	3	.03	2	.02	2.65	.03	33	.33	3	.03	3	.03	3.27	.03
1,153	11.62	11	.11	....	......	25.28	.25	1,204	11.59	11	.11	....	....	26.18	.26
4,941	49.81	4	.04	4	.04	63.36	.64	5,212	50.16	4	.04	5	.05	70.97	.72
40	.40	......	......	....	......	1.94	.02	40	.38	......	......	....	....	1.94	.02
123	1.24	......	......	....	......	1.98	.02	125	1.20	......	......	....	....	2 01	02
983	9.91	3	.03	16	.16	70.22	.71	1,035	9.96	3	.03	18	.17	74.62	.75
486	4.90	36	.36	4	.04	48.30	.49	507	4.88	36	.36	4	.04	50.77	.51
86	.87	......	......	....	......	5.14	.05	92	.89	......	......	....	....	5.37	.05
,818	28.41	19	.19	1	.01	41.31	.42	2,906	27.96	19	.19	1	.01	43.72	.44
10	.10	1	.01	1	.01	.86	.01	10	.10	1	.01	2	.02	.97	.01
18	.18	......	......	....	......	2.14	.02	24	.23	......	......	1	.01	2.52	.03
419	4.27	3	.03	4	.04	18.13	.18	436	4.20	3	.03	4	.04	19.81	.20
6	.06	......	......	4	.04	.43	.00	6	.06	......	......	4	.04	.43	.00
61	.61	......	......	6	.06	3.40	.03	61	.59	......	......	6	.06	3.40	.03
69	.70	18	.18	11	.11	12.92	.13	84	.81	18	.18	12	.12	16.39	.17
73	.74	6	.06	2	.02	8.54	.09	78	.75	6	.06	2	.02	8.94	.09
240	2.42	29	.29	....	......	10.57	.11	245	2.36	29	.29	....	....	10.67	.11
122	1.23	29	.29	....	......	6.46	.07	122	1.17	29	.29	....	....	6.46	.07
206	2.08	......	......	....	......	3.96	.04	210	2.02	......	......	....	....	4.15	.04
16	.16	......	......	....	......	.57	.01	20	.19	......	......	....	....	.83	.01
444	4.48	3	.03	....	......	15.24	.15	456	4.39	3	.03	....	....	16.36	.16
,494	15.07	......	......	....	......	25.99	.26	1,512	14.55	......	......	....	....	26.36	.26
,531	15.44	......	......	....	......	42.15	.42	1,567	15.07	......	......	....	....	42.92	.43
247	2.49	11	.11	....	......	20.77	.21	267	2.57	11	.11	....	....	22.36	.23
395	3.98	38	.38	....	......	33.28	.34	417	4.01	38	.38	....	....	35.33	.36
408	4.11	139	1.40	....	......	37.17	.37	408	3.93	139	1.40	....	....	37.17	.37
359	3.62	3	.03	....	......	11.84	.12	360	3.46	3	.03	....	....	11.85	.12
3	.03	......	......	....	......	.18	.00	3	.03	......	......	....	....	.18	.00
558	5.63	......	......	....	......	13.70	.14	573	5.51	......	......	....	....	13.89	.14
99	1.00	1	.01	5	.05	4.60	.05	107	1.03	1	.01	5	.05	5.05	.05
44	.44	......	......	....	......	1.96	.02	44	.42	......	......	....	....	1.96	.02
11	.11	......	......	59	.59	....	....	11	.10	......	......	63	.61	....	......
247	2.49	......	......	....	......	....	....	258	2.48	......	......	....	....	....	......
73	.74	......	......	....	......	....	....	76	.73	......	......	....	....	....	......
56	.56	......	......	5	.05	....	....	58	.56	......	......	5	.05	....	......

TABLE No. 69.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
the yea

Serial Nos.	Inter-national classification.	Causes of admission to sick report.	Officers, Army.							
		Mean strength	S. G. O., 4,734—A. G. O., 5,155.							
			Admissions.		Retirements.		Deaths.		Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.								
438	166	Conflagration	......	......	......	......	......	......	......	....
439	167	Burns (conflagrations excepted)	6	1.27	......	......	......	......	......	....
440	168	Absorption of deleterious gases	......	......	......	......	......	......	......	....
441	168a	Suffocation, strangulation	......	......	......	......	1	0.19	......	....
442	169	Drowning, accidental	......	......	......	......	1	.19	......	....
443	170	Traumatism by firearms (other than specified)	4	.84	1	0.19	......	......	......	....
444	170a	Shot by sentry or guard	......	......	......	......	......	......	......	....
445	171	Traumatism by cutting or piercing instruments	10	2.11	1	.19	......	......	......	....
446	172	Traumatism by fall	95	20.07	2	.39	2	.39	......	....
447	173	Traumatism in mines and quarries	......	......	......	......	......	......	......	....
448	174	Traumatism by machines	1	.21	......	......	......	......	......	....
449	175	Traumatism by other crushing	26	5.49	......	......	3	.58	......	....
450	176	Injuries by animals	26	5.49	......	......	......	......	......	....
451	177	Starvation	......	......	......	......	......	......	......	....
		Mean strength	S. G. O. 4734—A. G. O. 5155.							
452	178	Effects of excessive cold	......	......	......	......	......	......	......	....
453	179	Effects of heat	......	......	......	......	......	......	......	....
454	180	Effects of lightning	......	......	......	......	......	......	......	....
455	181	Effects of electricity	......	......	......	......	......	......	......	....
456–458	182–4	Homicides, all	......	......	......	......	1	0.19	......	....
459	185	Fractures, causes not specified	......	......	......	......	......	......	......	....
460	186	Other external violence	85	17.96	1	0.19	......	......	......	....
462–466	....	Killed or wounded in action	5	1.06	......	......	2	.39	......	....
462	....	By bullet	5	1.06	......	......	2	.39	......	....
463	....	By shell	......	......	......	......	......	......	......	....
464	....	By sword or bayonet	......	......	......	......	......	......	......	....
465	....	By bolo, kris, etc	......	......	......	......	......	......	......	....
466	....	By other weapon	......	......	......	......	......	......	......	...
		DISEASES AND INJURIES GROUPED.								
	....	General diseases	495	104.56	......	......	8	1.55	25.54	5.
	1–19	Epidemic diseases	417	88.08	......	......	3	.58	12.52	2.
	20–59	Other general diseases	78	16.48	......	......	5	.97	13.02	2.
	....	Diseases of the nervous system and organs of special sense	205	43.31	......	......	1	.19	16.46	3.
	60–74	Of the nervous system	121	25.56	......	......	1	.19	11.18	2.
	75	Of the eye and its annexa	63	13.31	......	......	......	......	3.82	
	76	Of the ear and its annexa	21	4.44	......	......	......	......	1.46	
	77–85	Diseases of the circulatory system	79	16.69	......	......	3	.58	6.25	1
	86–98	Diseases of the respiratory system	304	64.22	......	......	6	1.16	6.57	1
	99–118	Diseases of the digestive system	731	154.42	......	......	6	1.16	25.04	5
	119–127	Diseases of the genitourinary system	60	12.67	......	......	1	.19	6.36	1
	142–145	Diseases of the skin and cellular tissue	102	21.55	......	......	1	.19	3.24	
	146–149	Diseases of the organs of locomotion	112	23.66	......	......	......	......	5.97	1
	150	Malformations, etc	1	.21	......	......	......	......	.01	
	154	Diseases, results of old age	......	......	......	......	......	......	......	...
	189	Ill-defined diseases	29	6.13	......	......	......	......	.71	
		Total for disease	2,118	447.40	......	......	26	5.04	96.16	2
	155–186	External causes	290	61.26	......	......	14	2.72	14.82	3
		Total for disease and external causes	2,408	508.66	......	......	40	7.74	110.98	2

atios per 1,000 of mean strength, for the Army, officers and American troops, for 1916—Continued.

American troops, Army.								Officers and American troops, Army.							
S. G. O., 105,720—A. G. O., 105,720.								S. G. O., 110,454—A. G. O., 110,875.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
2	0.02	......	......	3	0.03	....	....	2	0.02	......	......	3	0.03	....	......
353	3.56	......	......	....	......	....	....	359	3.48	......	......	....	....	....	......
1	.01	......	......	2	.02	....	....	1	.01	......	......	2	.02	....	......
2	.02	......	......	1	.01	....	....	2	.02	......	......	2	.02	....	......
......	....	......	......	45	.45	....	....	......	......	......	......	46	.46	....	......
387	3.90	48	0.48	24	.24	....	....	391	3.76	48	0.48	24	.23	....	......
4	.04	2	.02	3	.03	....	....	4	.04	2	.02	3	.03	....	......
1,255	12.65	10	.10	....	......	....	....	1,265	12.17	10	.10	....	....	....	......
3,064	30.89	44	.44	11	.11	....	....	3,159	30.40	44	.44	13	.12	....	......
1	.01	......	......	1	.01	....	....	1	.01	......	......	1	.01	....	......
62	.63	2	.02	....	......	....	....	63	.61	2	.02	....	....	....	......
880	8.87	34	.34	26	.26	....	....	906	8.72	34	.34	29	.28	....	......
1,129	11.38	2	.02	3	.03	....	....	1,155	11.11	2	.02	3	.03	....	......
......	....	......	......	....	......	....	....	......	......	......	......	....	....	....	......
S. G. O. 105720—A. G. O. 99186.								S. G. O. 103920—A. G. O. 103491.							
21	0.21	......	......	....	......	....	....	21	0.20	......	......	....	....	....	......
171	1.72	......	......	2	0.02	....	....	176	1.69	......	......		2.02	....	......
1	.01	1	0.01	2	.02	....	....	1	.01	1	0.01		2.02	....	......
3	.03	......	......	1	.01	....	....	3	.03	......	......	1	.01	....	......
11	.11	......	......	29	.29	....	....	11	.11	......	......	30	.29	....	......
2	.02	......	......	....	......	....	....	2	.02	......	......	....	....	....	......
4,721	47.60	25	.25	7	.07	....	....	4,806	46.25	25	.25	7	.07	....	......
36	.36	4	.04	34	.34	....	....	41	.39	4	.04	36	.35	....	......
35	.35	4	.04	34	.34	....	....	40	.39	4	.04	36	.35	....	......
......	....	......	......	....	......	....	....	......	......	......	......	....	....	....	......
......	....	......	......	....	......	....	....	......	......	......	......	....	....	....	......
......	....	......	......	....	......	....	....	......	......	......	......	....	....	....	......
1	.01	......	......	....	......	....	....	1	.01	......	......	....	....	....	......
22,382	225.66	464	4.68	108	1.09	1,081.66	10.93	22,877	220.14	464	4.68	116	1.11	1,110.20	11.19
9,451	95.28	11	.11	26	.26	263.87	2.66	9,868	94.77	11	.11	29	.28	276.40	2.79
12,931	130.37	453	4.57	82	.83	820.78	8.28	13,009	125.19	453	4.57	87	.84	833.80	8.41
3,189	32.16	473	4.76	21	.21	219.39	2.22	3,394	32.65	473	5.76	22	.31	235.85	2.38
1,463	14.75	416	4.19	21	.21	155.33	1.57	1,584	15.24	416	4.19	22	.21	166.52	1.68
1,043	10.52	32	.32	....	......	37.60	.38	1,106	10.64	32	.32	....	....	41.41	.42
683	6.89	25	.25	....	......	26.47	.27	704	6.77	25	.25	....	....	27.92	.28
2,253	22.71	85	.86	26	.26	122.40	1.23	2,332	22.44	85	.86	29	.28	128.66	1.30
5,668	57.14	41	.41	41	.41	143.03	1.44	5,972	57.47	41	.41	47	.45	149.60	1.51
17,437	175.86	82	.83	38	.38	379.47	3.83	18,168	174.83	82	.83	44	.42	404.52	4.08
1,165	11.75	60	.60	19	.19	58.51	.59	1,225	117.88	60	.60	20	.19	64.87	.65
5,480	55.25	11	.11	....	......	139.96	1.41	5,582	53.72	11	.11	1	.01	143.20	1.44
2,679	27.01	210	2.12	....	......	140.41	1.42	2,791	26.86	210	2.12	....	....	146.38	1.48
359	3.62	3	.03	....	......	11.84	.12	360	3.46	3	.03	....	....	11.85	.12
3	.03	......	......	....	......	.18	.00	3	.03	......	......	....	....	.18	.00
803	8.10	1	.01	5	.05	21.69	.22	832	8.01	1	.01	5	.05	22.40	.23
61,418	619.22	1,430	14.42	258	2.60	2,321.54	23.41	63,536	611.39	1,430	14.42	284	2.73	2,417.70	24.38
12,732	128.36	209	2.11	258	2.60	453.98	4.58	13,022	125.31	209	2.11	272	2.61	468.80	4.73
74,150	747.59	1,639	16.52	516	5.21	2,775.52	27.98	76,558	736.70	1,639	16.52	556	5.34	2,886.50	29.10

TABLE No. 70.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit colored*

Serial Nos.	International classification.		Army, American troops, white and colored.							
		Mean strength....................	S. G. O., 99,186—A. G. O., 99,186.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Non-effective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever	20	0.20	......	......	1	0.01	3.54	0.0
2	1a	Paratyphoid fever	110	1.11	......	......	......	......	10.73	.1
7–11	4	Malaria	2,253	22.71	......	......	1	.01	58.53	.5
7	....	Estivo-autumnal fever	534	5.38	......	......	1	.01	16.57	.1
8	....	Malarial cachexia	4	.04	......	......	......	......	1.30	.0
9	....	Quartan malarial fever	17	.17	......	......	......	......	.46	.0
10	....	Tertian malarial fever	1,489	15.01	......	......	......	......	36.53	.3
11	....	Undetermined malarial fever	209	2.11	......	......	......	......	3.66	.0
12	5	Smallpox and varioloid	1	.01	......	......	......	......	.03	.0
13	5b	Vaccinia	547	5.51	......	......	......	......	6.49	.0
14	6	Measles	1,314	13.25	2	.02	9	.09	56.13	.5
15	7	Scarlet fever	48	.48	......	......	3	.03	4.26	.0
17	9	Diphtheria	37	.37	......	......	......	......	2.52	.0
18	10	Influenza	2,880	29.04	......	......	1	.01	42.67	.4
19	12	Asiatic cholera	5	.05	......	......	......	......	.47	.0
21–23	14	Dysentery	621	6.26	9	.09	10	.10	44.72	.4
21	....	Bacillary	52	.52	......	......	1	.01	1.71	.0
22	....	Entamœbic	399	4.02	9	.09	8	.08	37.26	.3
23	....	Unclassified	170	1.71	......	......	1	.01	5.74	.0
27	18	Erysipelas	51	.51	......	......	1	.01	2.38	.0
29	19b	Dengue	903	9.10	......	......	......	......	13.68	.1
31	19d	German measles	13	.13	......	......	......	......	.37	.
34	19g	Mumps	289	2.91	......	......	......	......	12.46	.1
37	20	Purulent infection and septicemia	12	.12	......	......	10	.10	.56	.
42–46	25	Mycoses	7	.07	......	......	......	......	.47	.
49–57	28–34	Tuberculosis, all	343	3.46	218	2.20	38	.38	177.36	1.7
49–51	28	Tuberculosis of lungs	311	3.14	207	2.09	34	.34	168.48	1.7
52	29	Miliary tuberculosis, acute	3	.03	1	.01	2	.02	.72	.
53–57	30–34	Tuberculosis of other organs	29	.29	10	.10	2	.02	8.15	.
58	36	Scoliosis (rickets)	6	.06	1	.01	......	......	.45	.
59–74	37–38	Venereal diseases, all	10,251	103.35	159	1.60	13	.13	557.72	5.
59–64	37	Syphilis	2,119	21.36	73	.74	12	.12	175.65	1.
184	83e	Variocele	225	2.27	1	.01	......	......	11.27	.
185–187	84	Diseases of the lymphatic system	810	8.17	......	......	......	......	48.09	.
193–199	86	Diseases of the nasal fossæ	1,361	13.72	2	.02	......	......	21.38	.
200–202	87	Diseases of the larynx	178	1.79	1	.01	1	.01	3.16	.
203–204	88	Diseases of the thyroid body	36	.36	9	.09	......	......	4.58	.
205–206	89–90	Bronchitis	3,361	33.88	5	.05	......	......	64.44	.
207	91	Broncho-pneumonia	49	.49	......	......	8	.08	3.74	.
208	92	Pneumonia	205	2.07	3	.03	28	.28	15.24	.
209–215	93	Pleurisy	336	3.39	8	.08	......	......	22.36	.
216–217	94	Pulmonary congestion and pulmonary apoplexy	5	.05	......	......	2	.02	.10	.
219	96	Asthma	104	1.05	12	.12	......	......	6.75	.
220	97	Pulmonary emphysema	2	.02	1	.01	......	......	.24	.
221	98a	Hæmoptysis	10	.10	......	......	......	......	.27	.
222	98b	Hay fever	4	.04	......	......	......	......	.28	.
224–227	99a	Diseases of the teeth and gums	625	6.30	......	......	......	......	10.47	.
228–231	99b	Other diseases of the mouth and annexa	95	.96	......	......	......	......	2.37	.
232–236	100	Diseases of the pharynx	5,600	56.46	......	......	......	......	83.64	.
238	102	Ulcer of stomach	25	.25	3	.03	2	.02	2.65	.
239–244	103	Other diseases of stomach (cancer excepted)	1,153	11.62	11	.11	......	......	25.28	.
245–253	105	Diarrhea and enteritis	4,941	49.81	4	.04	4	.04	63.36	.
254	106	Ankylostomiasis	40	.40	......	......	......	......	1.94	.
255–259	107	Intestinal parasites	123	1.24	......	......	......	......	1.98	.
260	108	Appendicitis	983	9.91	3	.03	16	.16	70.22	.
261–263	109	Hernia	486	4.90	36	.36	4	.04	48.30	.
264–267	110a	Diseases of the anus and fecal fistula	86	.87	......	......	......	......	5.14	.
268–272	110b	Other diseases of the intestines	2,818	28.41	19	.19	1	.01	41.31	.
275	113	Cirrhosis of liver	10	.10	1	.01	1	.01	.86	.
276	114	Biliary calculi	18	.18	......	......	......	......	2.14	.
277–281	115	Other diseases of liver and gall bladder	419	4.27	3	.03	4	.04	18.13	.
283–284	117	Simple peritonitis	6	.06	......	......	4	.04	.43	.
288	119	Acute nephritis	61	.61	......	......	6	.06	3.40	.
289–291	120	Bright's disease	[illegible]	.70	18	.18	11	.11	12.92	.

ios per 1,000 of mean strength, for the Army, American troops, enlisted men, white and
r 1916.

Army, American troops, white.								Army, American troops, colored.							
S. G. O., 93,625—A. G. O., 93,625.								S. G. O., 5,561—A. G. O., 5,561.							
dmissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
umber.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
20	0.21	.....	.....	1	0.01	3.54	0.05	.....	.....	.....	.....	.....	.....	.....	.....
106	1.13	.....	.....	.....	.....	10.42	.16	4	0.72	.....	.....	.....	.....	0.31	0.06
,148	22.94	.....	.....	1	.01	55.73	.84	105	18.88	.....	.....	.....	.....	2.80	.50
497	5.31	.....	.....	1	.01	15.47	.23	37	6.65	.....	.....	.....	.....	1.10	.20
4	.04	.....	.....	.....	.....	1.30	.02	.....	.....	.....	.....	.....	.....	.....	.....
17	.16	.....	.....	.....	.....	.46	.01	.....	.....	.....	.....	.....	.....	.....	.....
,424	15.21	.....	.....	.....	.....	34.87	.53	65	11.69	.....	.....	.....	.....	1.66	.30
206	2.20	.....	.....	.....	.....	3.63	.05	3	.54	.....	.....	.....	.....	.04	.01
.....	.....	.....	.....	.....	.....	.....	.....	1	.18	.....	.....	.....	.....	.03	.00
545	5.82	.....	.....	.....	.....	6.33	.10	2	.36	.....	.....	.....	.....	.16	.03
,309	13.98	2	0.02	9	.10	55.95	.84	5	.90	.....	.....	.....	.....	.18	.03
48	.51	.....	.....	3	.03	4.26	.06	.....	.....	.....	.....	.....	.....	.....	.....
31	.33	.....	.....	.....	.....	1.70	.03	6	1.08	.....	.....	.....	.....	.82	.15
,834	30.27	.....	.....	1	.01	41.79	.63	46	8.27	.....	.....	.....	.....	.89	.16
5	.05	.....	.....	.....	.....	.47	.01	.....	.....	.....	.....	.....	.....	.....	.....
578	6.17	9	.10	9	.10	41.12	.62	43	7.73	.....	.....		1.18	3.60	.65
51	.54	.....	.....	1	.01	1.64	.02	1	.18	.....	.....	.....	.....	.07	.01
367	3.92	9	.10	7	.07	34.01	.51	32	5.75	.....	.....	1	.18	3.25	.58
160	1.71	.....	.....	1	.01	5.47	.08	10	1.80	.....	.....	.....	.....	.27	.05
46	.49	.....	.....	1	.01	2.11	.03	5	.90	.....	.....	.....	.....	.27	.05
898	9.59	.....	.....	.....	.....	13.55	.20	5	.90	.....	.....	.....	.....	.13	.02
13	.14	.....	.....	.....	.....	.37	.01	.....	.....	.....	.....	.....	.....	.....	.....
285	3.04	.....	.....	.....	.....	12.33	.19	4	.72	.....	.....	.....	.....	.13	.02
12	.13	.....	.....	10	.10	.56	.01	.....	.....	.....	.....	.....	.....	.....	.....
7	.07	.....	.....	.....	.....	.47	.01	.....	.....	.....	.....	.....	.....	.....	.....
319	3.41	186	1.99	30	.32	159.19	2.40	24	4.32	32	5.75	8	1.44	18.17	3.27
291	3.11	175	1.87	27	.29	150.73	2.27	20	3.60	32	5.75	7	1.26	17.75	3.19
3	.03	1	.01	2	.02	.72	.01	.....	.....	.....	.....	.....	.....	.....	.....
25	.26	10	.11	1	.01	7.73	.12	4	.72	.....	.....	1	.18	.42	.08
6	.06	1	.01	.....	.....	.45	.01	.....	.....	.....	.....	.....	.....	.....	.....
,433	100.75	134	1.43	12	.13	510.57	7.70	818	147.10	25	4.50	1	.18	47.15	8.48
,970	21.04	63	.67	11	.12	160.10	2.41	149	26.79	10	1.80	1	.18	15.54	2.80
220	2.35	1	.01	.....	.....	11.14	.17	5	.90	.....	.....	.....	.....	.13	.02
787	8.41	.....	.....	.....	.....	46.53	.70	23	4.14	.....	.....	.....	.....	1.56	.28
,337	14.28	2	.02	.....	.....	20.92	.32	24	4.32	.....	.....	.....	.....	.46	.08
177	1.89	1	.01	1	.01	3.15	.05	1	.18	.....	.....	.....	.....	.01	.00
36	.38	9	.10	.....	.....	4.58	.07	.....	.....	.....	.....	.....	.....	.....	.....
,245	34.66	5	.05	.....	.....	62.16	.94	116	20.86	.....	.....	.....	.....	2.28	.41
49	.52	.....	.....	8	.09	3.74	.06	.....	.....	.....	.....	.....	.....	.....	.....
191	2.04	3	.03	26	.28	14.01	.21	14	2.52	.....	.....	2	.36	1.23	.22
310	3.31	8	.09	.....	.....	20.64	.31	26	4.68	.....	.....	.....	.....	1.72	.31
5	.05	.....	.....	2	.02	.10	.00	.....	.....	.....	.....	.....	.....	.....	.....
99	1.06	12	.13	.....	.....	6.64	.10	5	.90	.....	.....	.....	.....	.11	.02
2	.02	1	.01	.....	.....	.24	.00	.....	.....	.....	.....	.....	.....	.....	.....
10	.11	.....	.....	.....	.....	.27	.00	.....	.....	.....	.....	.....	.....	.....	.....
4	.04	.....	.....	.....	.....	.28	.00	.....	.....	.....	.....	.....	.....	.....	.....
579	6.18	.....	.....	.....	.....	9.67	.15	46	8.27	.....	.....	.....	.....	.80	.14
90	.96	.....	.....	.....	.....	2.30	.03	5	.90	.....	.....	.....	.....	.08	.01
,280	56.40	.....	.....	.....	.....	78.43	1.18	320	57.54	.....	.....	.....	.....	5.21	.94
24	.26	3	.03	2	.02	2.57	.04	1	.18	.....	.....	.....	.....	.08	.01
,086	11.60	11	.12	.....	.....	24.13	.36	67	12.05	.....	.....	.....	.....	1.15	.21
,587	49.00	4	.04	4	.04	60.20	.91	354	63.66	.....	.....	.....	.....	3.15	.57
39	.42	.....	.....	.....	.....	1.93	.03	1	.18	.....	.....	.....	.....	.01	.00
121	1.29	.....	.....	.....	.....	1.96	.03	2	.36	.....	.....	.....	.....	.02	.00
949	10.14	3	.03	14	.15	67.67	1.02	34	6.11	.....	.....	2	.36	2.55	.46
465	4.97	34	.36	4	.04	45.47	.69	21	3.78	2	.36	.....	.....	2.83	.51
82	.88	.....	.....	.....	.....	4.90	.07	4	.72	.....	.....	.....	.....	.24	.04
,647	28.28	18	.19	1	.01	39.47	.60	171	30.75	1	.18	.....	.....	1.85	.33
10	.11	1	.01	.....	.....	.86	.01	.....	.....	.....	.....	1	.18	.....	.....
17	.18	.....	.....	.....	.....	2.01	.03	1	.18	.....	.....	.....	.....	.13	.02
407	4.35	3	.03	4	.04	17.63	.27	12	2.16	.....	.....	.....	.....	.51	.09
5	.05	.....	.....	4	.04	.41	.01	1	.18	.....	.....	.....	.....	.01	.00
51	.54	.....	.....	5	.05	2.93	.04	10	1.80	.....	.....	1	.18	.47	.08
66	.70	17	.18	9	.10	12.22	.18	3	.54	1	.18	2	.36	.70	.13

TABLE No. 70.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
colored, ye

Serial Nos.	International classification.	Mean strength	Army, American troops, white and colored.							
			S. G. O., 99,186—A. G. O., 99,186.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
293-299	122	Other diseases of the kidney and annexa	73	0.74	6	0.06	2	0.02	8.54	0.
65-67	38a	Soft chancre	2,337	23.56	......	......	......	......	115.89	1
68-74	38b	Gonococcus infection	5,795	58.42	86	.87	1	.01	266.19	2
75-79	39-45	Cancer and other malignant tumors	32	.32	4	.04	13	.13	6.49	
80	46	Benign tumors	137	1.38	2	.02	......	......	5.05	
81-85	47-48	Rheumatism, articular, all	565	5.70	18	.18	1	.01	36.50	
81-82	47	Acute articular rheumatism	418	4.21	3	.03	1	.01	25.36	
83-85	48	Chronic articular rheumatism	147	1.48	15	.15	......	......	11.14	
87-88	50	Diabetes	16	.16	9	.09	3	.03	2.30	
89	51	Exophthalmic goiter	27	.27	21	.21	......	......	5.97	
97-100	56	Alcoholism and results	1,190	12.00	13	.13	3	.03	20.70	
101-102	57-58	Chronic occupational poisoning	4	.04	1	.01	......	......	.52	
103-104	59	Other chronic poisoning, including drug habit	46	.46	3	.03	......	......	1.94	
105-106	60	Encephalitis	1	.01	......	......	1	.01	.02	
107	61	Simple meningitis	1	.01	1	.01	......	......	.13	
108	61a	Epidemic cerebrospinal meningitis	20	.20	2	.02	9	.09	1.63	
109	62	Locomotor ataxia	16	.16	5	.05	1	.01	4.07	
110-115	63	Other diseases of spinal cord	6	.06	2	.02	......	......	1.12	
116	64	Cerebral hemorrhage, apoplexy	4	.04	......	......	4	.04	.02	
117-119	66	Paralysis without specified cause	32	.32	3	.03	1	.01	2.91	
120-126	67-68	Mental alienation	369	3.72	271	2.72	4	.04	82.44	
127	69	Epilepsy	145	1.46	75	.76	......	......	12.67	
129-133	73	Neuralgia and neuritis	567	5.72	27	.27	1	.01	31.15	
138-141	75a	Follicular conjunctivitis	494	4.98	3	.03	......	......	11.17	
142	75b	Trachoma	13	.13	3	.03	......	......	.81	
166	77	Pericarditis	7	.07	1	.01	1	.01	.59	
167	78	Acute endocarditis	6	.06	1	.01	2	.02	.74	
169-174	79	Organic heart disease	167	1.68	56	.56	17	.17	19.56	
175	80	Angina pectoris	9	.09	1	.01	1	.01	.60	
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	19	.19	5	.05	4	.04	2.35	
178-179	82	Embolism and thrombosis	5	.05	......	......	1	.01	.48	
181	83b	Hemorrhoids	750	7.56	1	.01	......	......	23.94	
183	83d	Varicose veins	89	.90	12	.12	......	......	7.31	
303-306	124	Diseases of the bladder	240	2.42	29	.29	......	......	10.57	
304	124b	Enuresis	122	1.23	29	.29	......	......	6.46	
307-309	125	Diseases of the urethra, urinary abscess, etc	206	2.08	......	......	......	......	3.96	
310-312	126	Diseases of the prostate	16	.16	......	......	......	......	.57	
313-319	127	Diseases of the male genital organs (nonvenereal)	444	4.48	3	.03	......	......	15.24	
322-323	143	Furuncle and carbuncle	1,494	15.07	......	......	......	......	25.99	
324-325	144	Acute abscess and cellulitis	1,531	15.44	......	......	......	......	42.15	
352-357	146	Diseases of the bones	247	2.49	11	.11	......	......	20.77	
358-360	147	Diseases of the joints	395	3.98	38	.38	......	......	33.28	
367	147g	Flat foot	408	4.11	139	1.40	......	......	37.17	
372	150	Congenital malformations	359	3.62	3	.03	......	......	11.84	
373-374	154	Senility	3	.03	......	......	......	......	.18	
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	558	5.63	......	......	......	......	13.70	
379	189Ba	Under observation, undiagnosed and unknown	99	1.00	1	.01	5	.05	4.60	
380	189Bb	Malingering	44	.44	......	......	......	......	1.96	
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426-434	155-163	Suicides, all	11	.11	......	......	59	.59	......	
435	164	Poisoning by food	247	2.49	......	......	......	......	......	
436	165a	Venomous bites and stings	73	.74	......	......	......	......	......	
437	165b	Other poisoning (deleterious gases excepted)	56	.56	......	......	5	.05	......	
438	166	Conflagration	2	.02	......	......	3	.03	......	

[1] Noneffectiveness for individual external causes not tabulated.

ios per 1,000 of mean strength, for the Army, American troops, enlisted men, white and 16—Continued.

Army, American troops, white.								Army, American troops, colored.							
S. G. O., 93,625—A. G. O., 93,625.								S. G. O., 5,561—A. G. O., 5,561.							
dmissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
umber.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
72	0.77	6	0.06	2	0.02	8.32	0.13	1	0.18	....	....	....	....	0.22	0.04
,177	23.25	....	....	....	....	105.56	1.59	160	28.77	....	....	....	....	10.33	1.86
,286	56.46	71	.76	1	.01	244.91	3.69	509	91.53	15	2.70	....	....	21.28	3.83
31	.33	4	.04	13	.14	6.27	.09	1	.18	....	....	....	....	.22	.04
134	1.43	1	.01	....	....	4.84	.07	3	.54	1	.18	....	....	.21	.04
539	5.76	15	.16	1	.01	33.02	.50	26	4.68	3	.54	....	....	3.48	.63
398	4.25	2	.02	1	.01	22.69	.34	20	3.60	1	.18	....	....	2.67	.48
141	1.51	13	.14	....	....	10.33	.16	6	1.08	2	.36	....	....	.81	.14
15	.16	8	.09	3	.03	2.10	.03	1	.18	1	.18	....	....	.19	.03
26	.28	20	.21	....	....	5.60	.08	1	.18	1	.18	....	....	.37	.07
,160	12.39	12	.13	3	.03	20.14	.31	30	5.39	1	.18	....	....	.56	.10
4	.04	1	.01	....	....	.52	.01	....	....	....	....	....	....	....	....
35	.37	3	.03	....	....	1.79	.03	11	1.98	....	....	....	....	.15	.03
1	.01	....	....	1	.01	.02	.00	....	....	....	....	....	....	....	....
1	.01	1	.01	....	....	.13	.00	....	....	....	....	....	....	....	....
20	.21	2	.02	9	.10	1.63	.02	....	....	....	....	....	....	....	....
16	.17	5	.05	1	.01	4.07	.06	....	....	....	....	....	....	....	....
6	.06	2	.02	....	....	1.12	.02	....	....	....	....	....	....	....	....
4	.04	....	....	4	.04	.02	.00	....	....	....	....	....	....	....	....
31	.33	2	.02	1	.01	2.84	.04	1	.18	1	.18	....	....	.07	.01
346	3.70	258	2.76	4	.04	76.46	1.15	23	4.14	13	2.34	....	....	5.98	1.08
143	1.53	75	.80	....	....	12.50	.19	2	.36	....	....	....	....	.17	.03
546	5.83	27	.29	1	.01	29.72	.45	21	3.78	....	....	....	....	1.43	.26
470	5.02	3	.03	....	....	10.56	.16	24	4.32	....	....	....	....	.61	.11
13	.14	3	.03	....	....	.81	.01	....	....	....	....	....	....	....	....
7	.07	1	.01	1	.01	.59	.01	....	....	....	....	....	....	....	....
5	.05	1	.01	2	.02	.64	.01	1	.18	....	....	....	....	.09	.02
153	1.63	52	.56	17	.18	16.43	.25	14	2.52	4	.72	....	....	3.13	.56
9	.10	1	.01	1	.01	.60	.01	....	....	....	....	....	....	....	....
18	.19	5	.05	4	.04	1.92	.03	1	.18	....	....	....	....	.43	.08
5	.05	....	....	1	.01	.48	.01	....	....	....	....	....	....	....	....
686	7.33	1	.01	....	....	21.16	.32	64	11.51	....	....	....	....	2.78	.50
88	.94	12	.13	....	....	7.15	.11	1	.18	....	....	....	....	.16	.03
221	2.36	26	.28	....	....	9.63	.15	19	3.42	3	.54	....	....	.95	.17
108	1.15	26	.28	....	....	5.95	.09	14	2.52	3	.54	....	....	.51	.09
180	1.92	....	....	....	....	3.53	.05	26	4.68	....	....	....	....	.43	.08
16	.17	....	....	....	....	.57	.01	....	....	....	....	....	....	....	....
398	4.25	2	.02	....	....	13.04	.20	46	8.27	1	.18	....	....	2.20	.40
,464	15.64	....	....	....	....	25.36	.38	30	5.39	....	....	....	....	.64	.11
,469	15.69	....	....	....	....	39.65	.60	62	11.14	....	....	....	....	2.50	.45
236	2.52	9	.10	....	....	18.90	.29	11	1.98	2	.36	....	....	1.86	.33
360	3.85	34	.36	....	....	30.06	.45	35	6.29	4	.72	....	....	3.22	.58
383	4.09	131	1.40	....	....	35.10	.53	25	4.50	8	1.44	....	....	2.07	.37
338	3.61	3	.03	....	....	11.36	.17	21	3.78	....	....	....	....	.48	09
2	.01	....	....	....	....	.17	.00	1	.18	....	....	....	....	.01	.00
531	5.67	....	....	....	....	12.84	.19	27	4.86	....	....	....	....	.86	.15
89	.95	1	.01	4	.04	3.97	.06	10	1.80	....	....	1	.18	.62	.11
38	.41	....	....	....	....	1.77	.03	6	1.08	....	....	....	....	.19	.03
11	.12	....	....	57	.61	....	....	....	....	....	....	2	.36	....	....
170	1.82	....	....	....	....	....	....	77	13.85	....	....	....	....	....	....
69	.74	....	....	....	....	....	....	4	.72	....	....	....	....	....	....
53	.57	....	....	5	.05	....	....	3	.54	....	....	....	....	....	....
2	.02	....	....	3	.03	....	....	....	....	....	....	....	....	....	....

Table No. 70.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
colored, ye

Serial Nos.	International classification.		Army, American troops, white and colored.							
		Mean strength	S. G. O., 99,186—A. G. O., 99,186.							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Non-effective.	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.								
439	167	Burns (conflagrations excepted)	353	3.56						
440	168	Absorption of deleterious gases	1	.01			2	0.02		
441	168a	Suffocation, strangulation	2	.02			1	.01		
442	169	Drowning, accidental					45	.45		
443	170	Traumatism by firearms (other than specified)	387	3.90	48	0.48	24	.24		
444	170a	Shot by sentry or guard	4	.04	2	.02	3	.03		
445	171	Traumatism by cutting or piercing instruments	1,255	12.65	10	.10				
446	172	Traumatism by fall	3,064	30.89	44	.44	11	.11		
447	173	Traumatism in mines and quarries	1	.01			1	.01		
448	174	Traumatism by machines	62	.63	2	.02				
449	175	Traumatism by other crushing	880	8.87	34	.34	26	.26		
450	176	Injuries by animals	1,129	11.38	2	.02	3	.03		
451	177	Starvation								
452	178	Effects of excessive cold	21	.21						
453	179	Effects of heat	171	1.72			2	.02		
454	180	Effects of lightning	1	.01	1	.01	2	.02		
455	181	Effects of electricity	3	.03			1	.01		
456–458	182–4	Homicides, all	11	.11			29	.29		
459	185	Fractures, causes not specified	2	.02						
460	186	Other external violence	4,721	47.60	25	.25	7	.07		
462–466		Killed or wounded in action	36	.36	4	.04	34	.34		
462		By bullet	35	.35	4	.04	34	.34		
463		By shell								
464		By sword or bayonet								
465		By bolo, kris, etc								
466		By other weapon	1	.01						
		DISEASES AND INJURIES GROUPED.								
		General diseases	22,382	225.66	464	4.68	108	1.09	1084.66	10.
	1–19	Epidemic diseases	9,451	95.28	11	.11	26	.26	263.87	2.
	20–59	Other general diseases	12,931	130.37	453	4.57	82	.83	820.78	8.
		Diseases of the nervous system and organs of special sense	3,189	32.16	473	4.76	21	.21	219.39	2.
	60–74	Of the nervous system	1,463	14.75	416	4.19	21	.21	155.33	1.
	75	Of the eye and its annexa	1,043	10.52	32	.32			37.60	.
	76	Of the ear and its annexa	683	6.89	25	.25			26.46	.
	77–85	Diseases of the circulatory system	2,253	22.71	85	.86	26	.26	122.40	1.
	86–98	Diseases of the respiratory system	5.668	57.14	41	.41	41	.41	143.03	1.
	99–118	Diseases of the digestive system	17,437	175.80	82	.83	38	.38	379.47	3.
	119–127	Diseases of the genito-urinary system	1,165	11.75	60	.60	19	.19	58.50	.
	142–145	Diseases of the skin and cellular tissue	5,480	55.25	11	.11			139.96	1.
	146–149	Diseases of the organs of locomotion	2,679	27.01	210	2.12			140.41	1.
	150	Malformations, etc	359	3.62	3	.03			11.84	.
	154	Diseases, results of old age	3	.03					.18	.
	189	Ill-defined diseases	803	8.10	1	.01	5	.05	21.69	.
		Total for disease	61,418	619.22	1,430	14.42	258	2.60	2321.54	23.
	155–186	External causes	12,732	128.36	209	2.11	258	2.60	453.98	4.
		Total for disease and external causes	74,150	747.59	1,639	16.52	516	5.20	2775.52	27.

tios per 1,000 of mean strength, for the Army, American troops, enlisted men, white and
'16—Continued.

Army, American troops, white.								Army, American troops, colored.							
S. G. O., 93,625—A. G. O., 93,625.								S. G. O., 5,561—A. G. O., 5,561.							
Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
314	3.67	......	......	......	......	......	......	9	1.62	......	......	......	......	......	......
1	.01	......	......	2	0.02	......	......	......	......	......	......	......	......	......	......
2	.02	......	......	1	.01	......	......	......	......	......	......	......	......	......	......
......	......	......	......	44	.47	......	......	......	......	......	......	1	0.18	......	......
363	3.88	44	0.47	22	.23	......	......	24	4.32	4	0.72	2	.36	......	......
4	.04	2	.02	3	.03	......	......	......	......	......	......	......	......	......	......
1,201	12.83	9	.10	......	......	......	......	54	9.71	1	.18	......	......	......	......
2,916	31.15	38	.41	11	.12	......	......	148	26.61	6	1.08	......	......	......	......
1	.01	......	......	1	.01	......	......	......	......	......	......	......	......	......	......
58	.62	1	.01	......	......	......	......	4	.72	1	.18	......	......	......	......
824	8.80	34	.36	25	.27	......	......	56	10.07	......	......	1	.18	......	......
1,036	11.07	2	.02	3	.03	......	......	93	16.72	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
19	.20	......	......	......	......	......	......	2	.36	......	......	......	......	......	......
161	1.72	......	......	2	.02	......	......	10	1.80	......	......	......	......	......	......
1	.01	1	.01	2	.02	......	......	......	......	......	......	......	......	......	......
2	.02	......	......	1	.01	......	......	1	.18	......	......	......	......	......	......
11	.12	......	......	21	.22	......	......	......	......	......	......	8	1.44	......	......
2	.02	......	......	......	......	......	......	......	......	......	......	......	......	......	......
4,428	47.30	22	.24	7	.07	......	......	293	52.69	3	.54	......	......	......	......
28	.30	2	.02	24	.26	......	......	8	1.44	2	.36	10	1.80	......	......
28	.30	2	.02	24	.26	......	......	7	1.26	2	.36	10	1.80	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	1	.18	......	......	......	......	......	......
,202	226.46	400	4.27	98	1.05	1,004.18	15.14	1,180	212.19	64	11.51	10	1.80	80.48	14.47
,204	98.32	11	.12	25	.27	254.19	3.83	247	44.42	......	......	1	.18	9.69	1.74
,998	128.15	389	4.15	73	.78	749.99	11.31	933	167.78	64	11.51	9	1.62	70.79	12.73
,061	32.70	457	4.88	21	.22	206.99	3.12	128	23.02	16	2.88	......	......	12.39	2.23
,405	15.01	401	4.28	21	.22	146.38	2.21	58	10.43	15	2.70	......	......	8.96	1.61
998	10.66	31	.33	......	......	35.41	.53	45	8.09	1	.18	......	......	2.19	.39
658	7.03	25	.27	......	......	25.21	.38	25	4.50	......	......	......	......	1.25	.23
,136	22.81	81	.87	26	.28	114.05	1.72	117	21.04	4	.72	......	......	8.36	1.50
,481	58.55	41	.44	39	.42	137.19	2.07	187	33.63	......	......	2	.36	5.84	1.05
,397	175.16	79	.84	35	.37	360.85	5.44	1,040	187.02	3	.54	3	.54	18.62	3.35
,058	11.30	55	.59	16	.17	53.07	.80	107	19.24	5	.90	3	.54	5.44	.98
,298	56.60	11	.12	......	......	134.42	2.03	182	32.73	......	......	......	......	5.54	1.00
,516	26.88	196	2.09	......	......	130.71	1.97	163	29.31	14	2.52	......	......	9.70	1.74
338	3.61	3	.03	......	......	11.36	.17	21	3.78	......	......	......	......	.48	.09
1	.01	......	......	......	......	.17	.00	1	.18	......	......	......	......	.01	.00
756	8.08	1	.01	4	.04	19.98	.30	47	8.45	......	......	1	.18	1.70	.31
,245	622.11	1,324	14.14	239	2.55	2,172.97	32.77	3,173	570.58	106	19.06	19	3.42	148.57	26.72
,935	127.48	192	2.05	234	2.50	424.42	6.40	797	143.32	17	3.06	24	4.32	29.56	5.32
180	749.59	1,516	16.19	473	5.05	2,597.39	39.17	3,970	713.90	123	22.12	43	7.73	178.13	32.03

TABLE No. 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit officers and enlisted men, Regulars and National Guard—officers and enliste*

Serial Nos.	International classification.	Mean strength	The Army (entire), officers and enlisted men, including National Guard.							
			176,382							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1	1	Typhoid fever	96	0.54	1	0.01	5	0.03	12.69	0.
2	1a	Paratyphoid fever	410	2.32	......	.....	4	.02	39.67	.
7-11	4	Malaria	4,685	26.50	......	.....	2	.01	110.24	.
7	....	Estivo-autumnal fever	853	4.82	......	.....	2	.01	28.24	.
8	....	Malarial cachexia	11	.06	......	.....	.....	.....	2.19	.
9	....	Quartan malarial fever	24	.14	......	.....	.....	.....	.57	.
10	....	Tertian malarial fever	2,934	16.59	......	.....	.....	.....	69.33	.
11	....	Undetermined malarial fever	863	4.88	......	.....	.....	.....	9.91	.
12	5	Smallpox and varioloid	20	.11	......	.....	1	.01	1.39	.
13	5b	Vaccinia	2,125	12.02	......	.....	.....	.....	18.08	.
14	6	Measles	2,168	12.24	2	.01	18	.10	83.44	.
15	7	Scarlet fever	77	.44	......	.....	4	.02	6.14	.
17	9	Diphtheria	90	.51	......	.....	1	.01	5.28	.
18	10	Influenza	6,176	34.96	......	.....	2	.01	80.46	.
19	12	Asiatic cholera	7	.04	......	.....	1	.01	.60	.
20	13	Cholera nostras	3	.02	......	.....	.....	.....	.02	.
21-23	14	Dysentery	1,066	6.03	10	.06	16	.09	61.88	.
21	....	Bacillary	116	.66	......	.....	2	.01	3.94	.
22	....	Entamœbic	538	3.04	10	.06	9	.05	47.61	.
23	....	Unclassified	412	2.33	......	.....	5	.03	10.33	.
27	18	Erysipelas	69	.39	......	.....	2	.01	2.96	.
29	19b	Dengue	1,795	10.15	......	.....	.....	.....	25.99	.
31	19d	German measles	17	.10	......	.....	.....	.....	.44	.
32	19e	Haemoglobinuric fever	......	.....	......	.....	.....	.....	......	....
34	19g	Mumps	456	2.58	......	.....	.....	.....	17.76	.
37	20	Purulent infection and septicemia	38	.21	......	.....	13	.07	1.28	.
41	24	Tetanus	2	.01	......	.....	.....	.....	.17	.
42-46	25	Mycoses	8	.05	......	.....	.....	.....	.49	.
48	27	Beriberi	2	.01	......	.....	.....	.....	.40	.
49-57	28-34	Tuberculosis, all	652	3.69	309	1.75	47	.27	204.57	1.
49-51	28	Tuberculosis of lungs	596	3.37	295	1.67	39	.22	193.86	1.
52	29	Miliary tuberculosis, acute	5	.03	4	.02	4	.02	.90	.
53-57	30-34	Tuberculosis of other organs	51	.28	10	.07	4	.02	9.82	.
58	36	Scoliosis (rickets)	11	.06	3	.02	.....	.....	.71	.
59-74	37-38	Venereal diseases, all	15,871	89.78	265	1.50	15	.08	752.33	4.
59-64	37	Syphilis	2,850	16.12	105	.59	13	.07	217.43	1.
65-67	38a	Soft chancre	3,390	19.17	2	.01	.....	.....	153.52	.
68-74	38b	Gonococcus infection	9,631	54.48	158	.89	2	.01	381.37	2.
75-79	39-45	Cancer and other malignant tumors	48	.27	4	.02	17	.10	9.22	.
80	46	Benign tumors	229	1.30	4	.02	.....	.....	7.89	.
81-85	47-48	Rheumatism, articular, all	1,188	6.72	29	.16	2	.01	58.57	.
81-82	47	Acute articular rheumatism	929	5.25	7	.04	2	.01	42.24	.
83-85	48	Chronic articular rheumatism	259	1.46	22	.12	.....	.....	16.33	.
87-88	50	Diabetes	30	.17	12	.07	6	.03	2.87	.
89	51	Exophthalmic goiter	34	.19	22	.12	.....	.....	6.55	.
97-100	56	Alcoholism and results	1,434	8.11	18	.10	5	.03	24.01	.
101-102	57-58	Chronic occupational poisoning	4	.02	1	.01	.....	.....	.52	.
103-104	59	Other chronic poisoning, including drug habit	57	.32	4	.02	.....	.....	2.16	.
105-106	60	Encephalitis	4	.02	......	.....	2	.01	.12	.
107	61	Simple meningitis	4	.02	1	.01	1	.01	.49	.
108	61a	Epidemic cerebrospinal meningitis	32	.18	2	.01	15	.08	2.18	.
109	62	Locomotor ataxia	26	.15	7	.04	1	.01	4.95	.
110-115	63	Other diseases of spinal cord	12	.07	4	.02	.....	.....	2.06	.
116	64	Cerebral hemorrhage, apoplexy	9	.05	......	.....	5	.03	.42	.
117-119	66	Paralysis without specified cause	51	.29	7	.04	1	.01	4.95	.
120-126	67-68	Mental alienation	513	2.90	301	1.70	5	.03	92.12	.
127	69	Epilepsy	318	1.80	97	.55	2	.01	17.91	.
129-133	73	Neuralgia and neuritis	1,090	6.17	37	.21	1	.01	44.58	.
138-141	75a	Follicular conjunctivitis	1,134	6.41	4	.02	.....	.....	20.60	.
142	75b	Trachoma	24	.14	7	.04	.....	.....	1.31	.
166	77	Pericarditis	11	.06	1	.01	1	.01	.74	.
167	78	Acute endocarditis	14	.08	1	.01	2	.01	1.16	.
169-174	79	Organic heart disease	346	1.96	108	.61	23	.13	29.41	.
175	80	Angina pectoris	20	.11	1	.01	1	.01	1.03	.

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[1] Including those occurring in the United States proper from commands on duty in Alaska or ins possessions.

ios per 1,000 of mean strength, for the Army (entire), including National Guard—
n, United States and National Guard—officers and enlisted men, year 1916.

egulars and National Guard, officers and enlisted men, serving in United States.										National Guard, officers and enlisted men.							
130,394.										65,928.							
dmissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.	
umber.	Ratio.	Number.		Ratio.	Num-ber.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)											
87	0.67	....	1	0.01	....	5	0.04	11.27	0.09	71	1.08	1	0.02	2	0.03	8.55	0.13
318	2.44	....	....	....	....	4	.03	31.91	.24	296	4.49	....	....	4	.06	28.55	.43
2,863	21.96	....	....	....	....	2	.02	63.74	.49	2,077	31.50	....	....	1	.02	42.02	.64
260	1.99	....	....	....	....	2	.02	10.02	.08	203	3.08	....	....	1	.02	7.70	.12
6	.05	....	....	....	....	....	....	1.53	.01	3	.05	....	....	....	....	.14	.00
15	.12	....	....	....	....	....	....	.33	.00	4	.06	....	....	....	....	.04	.00
,882	14.43	....	....	....	....	....	....	44.73	.34	1,227	18.61	....	....	....	....	28.12	.43
700	5.37	....	....	....	....	....	....	7.13	.05	640	9.71	....	....	....	....	6.01	.09
9	.07	....	....	....	....	....	....	.69	.01	9	.14	....	....	....	....	.64	.01
2,088	16.01	....	....	....	....	....	....	17.44	.13	1,568	23.78	....	....	....	....	11.26	.17
2,095	16.07	....	2	.02	18	18	.14	79.84	.61	848	12.86	....	....	9	.14	26.93	.41
65	.50	....	....	....	3	3	.02	5.01	.04	29	.44	....	....	1	.02	1.88	.03
84	.64	....	....	....	1	1	.01	4.37	.03	51	.77	....	....	1	.02	2.71	.04
,329	40.87	....	....	....	2	2	.02	66.90	.51	2,786	42.26	....	....	....	....	29.57	.45
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3	.02	....	....	....	....	....	....	.02	.00	2	.03	....	....	....	....	.01	.00
637	4.89	10	6	.05	13	13	.10	40.39	.31	372	5.64	1	.02	6	.09	12.05	.18
80	.61	....	....	....	1	1	.01	2.52	.02	47	.71	....	....	1	.02	1.35	.02
241	1.85	10	6	.05	7	7	.05	29.75	.23	97	1.47	1	.02	1	.02	6.39	.10
316	2.42	....	....	....	5	5	.04	8.11	.06	228	3.46	....	....	4	.06	4.31	.07
59	.45	....	....	....	2	2	.02	2.62	.02	15	.23	....	....	1	.02	.49	.01
1,436	11.01	....	....	....	....	....	....	18.51	.14	755	11.45	....	....	....	....	9.43	.14
15	.12	....	....	....	....	....	....	.37	.00	4	.06	....	....	....	....	.07	.00
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
335	2.57	....	....	....	....	....	....	10.07	.10	133	2.02	....	....	....	....	3.90	.06
31	.24	....	....	....	8	8	.06	.60	.00	22	.33	....	....	2	.03	.31	.00
1	.01	....	....	....	....	....	....	.00	.00	1	.02	....	....	....	....	.00	.00
7	.05	....	....	....	....	....	....	.49	.00	1	.02	....	....	....	....	.02	.00
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
497	3.81	288	189	1.45	41	25	.19	186.57	1.43	274	4.16	70	1.06	6	.09	17.31	.26
456	3.50	276	183	1.40	35	19	.15	178.50	1.37	253	3.84	69	1.05	3	.05	16.31	.25
2	.02	2	1	.01	2	2	.02	.34	.00	2	.03	1	.02	2	.03	.17	.00
39	.29	10	5	.04	4	4	.03	7.67	.06	19	.30	....	....	1	.02	.83	.01
8	.06	3	2	.02	....	....	....	.58	.00	5	.08	2	.03	....	....	.27	.00
,970	84.13	260	202	1.55	11	11	.08	522.19	1.17	5,357	81.26	102	1.55	2	.03	177.96	2.70
1,796	13.77	102	70	.54	9	9	.07	152.16	1.17	661	10.03	30	.46	1	.02	35.83	.54
2,123	16.28	2	2	.02	....	....	....	101.01	.77	1,016	15.41	2	.03	....	....	35.95	.55
7,051	54.07	156	130	1.00	2	2	.02	269.02	2.06	3,680	55.820	70	1.06	1	.02	106.19	1.61
29	.22	4	3	.02	13	8	.06	6.76	.05	7	11	....	....	....	....	.60	.01
170	1.30	4	2	.02	....	....	....	5.37	.04	76	1.15	2	.03	....	....	1.79	.03
1,009	7.74	28	21	.17	2	2	.02	51.92	.40	585	8.88	10	.15	1	.02	19.67	.30
794	6.09	7	6	.05	2	2	.02	37.71	.29	481	7.30	4	.06	1	.02	15.25	.23
215	1.65	21	15	.12	....	....	....	14.21	.11	104	1.58	6	.09	....	....	4.42	.07
25	.19	12	10	.08	4	4	.03	2.79	.02	13	.20	3	.05	3	.05	.45	.01
23	.18	22	10	.08	....	....	....	5.00	.04	7	.11	1	.02	....	....	.42	.01
1,015	7.78	18	14	.11	4	4	.03	787.36	6.04	220	3.34	5	.08	2	.03	2.91	.04
2	.01	1	....	....	....	....	....	.22	.00	....	....	....	....	....	....	....	....
30	.23	1	2	.02	....	....	....	1.65	.01	11	.17	1	.02	....	....	.22	.00
3	.02	....	....	....	1	1	.01	.10	.00	3	.05	....	....	1	.02	.10	.00
4	.03	1	1	.01	1	1	.01	.49	.00	2	.03	....	....	....	....	.31	.00
27	.21	2	1	.01	13	13	.10	1.91	.01	9	.14	....	....	4	.06	.38	.01
20	.15	6	6	.05	1	....	....	4.14	.03	8	.12	1	.02	....	....	.67	.01
10	.08	4	3	.02	....	....	....	1.36	.01	3	.05	2	.03	....	....	.40	.01
7	.05	....	....	....	4	4	.03	.42	.00	1	.02	....	....	1	.02	....	....
36	.28	7	5	.04	....	....	....	4.29	.03	17	.26	4	.06	....	....	1.45	.02
364	2.79	288	188	1.44	5	3	.02	70.00	.54	127	1.93	25	.38	1	.02	6.46	.10
275	2.11	97	78	.60	2	2	.02	14.93	.11	166	2.52	22	.33	2	.03	5.01	.08
883	6.77	37	29	.22	1	1	.01	36.54	.28	471	7.14	10	.15	....	....	10.63	.16
884	6.78	4	3	.02	....	....	....	15.20	.12	542	8.22	1	.02	....	....	7.61	.12
18	.14	7	6	.05	....	....	....	.99	.01	7	.11	4	.06	....	....	.38	.01
9	.07	1	1	.01	1	1	.01	.60	.00	4	.06	....	....	....	....	.15	.00
10	.08	1	1	.01	....	....	....	.83	.01	8	.12	....	....	....	....	.42	.01
295	2.26	106	91	.70	19	19	.15	24.41	.19	163	2.47	51	.77	4	.06	7.65	.12
18	.14	1	1	.01	1	1	.01	1.01	.01	10	.15	....	....	....	....	.24	.00

Excluding those occurring in the United States proper from commands on duty in Alaska or insular ssessions.

TABLE No. 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi* *officers and enlisted men, Regulars and National Guard—officers and enlisted me*

Serial Nos.	International classification.		The Army (entire), officers and enlisted men, including National Guard.							
		Mean strength	176,382							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffectiv	
			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	40	0.23	6	0.03	7	0.04	3.94	0.
178-179	82	Embolism and thrombosis	6	.03	.....	.....	1	.01	.65	
181	83b	Hemorrhoids	1,794	10.15	11	.06	.....	.....	48.43	
183	83d	Varicose veins	208	1.18	28	.16	.....	.....	10.93	
184	83e	Varicocele	622	3.52	5	.03	.....	.....	21.56	
185-187	84	Diseases of the lymphatic system	1,222	6.91	.....	.....	.....	.....	63.81	
193-199	86	Diseases of the nasal fossae	2,649	14.98	6	.03	.....	.....	34.39	
200-202	87	Diseases of the larynx	449	2.54	1	.01	1	.01	6.78	
203-204	88	Diseases of the thyroid body	69	.39	14	.08	.....	.....	6.25	
205-206	89-90	Bronchitis	7,186	40.65	11	.06	1	.01	115.20	
207	91	Broncho-pneumonia	102	.58	11	.06	.....	.....	6.42	
208	92	Pneumonia	531	3.00	4	.02	65	.37	30.59	
209-215	93	Pleurisy	773	4.37	16	.09	2	.01	33.35	
216-217	94	Pulmonary congestion and pulmonary apoplexy	27	.15	.....	.....	4	.02	.72	
219	96	Asthma	222	1.26	22	.12	.....	.....	10.87	
220	97	Pulmonary emphysema	4	.02	1	.01	.....	.....	.51	
221	98a	Hemoptysis	13	.07	.....	.....	.....	.....	.47	
222	98b	Hay fever	12	.07	.....	.....	.....	.....	.37	
224-227	99a	Diseases of the teeth and gums	1,098	6.21	6	.03	.....	.....	17.47	
228-231	99b	Other diseases of the mouth and annexa	168	.95	16	.09	.....	.....	3.37	
232-236	100	Diseases of the pharynx	9,609	54.35	.....	.....	.....	.....	130.78	
238	102	Ulcer of stomach	77	.44	10	.06	4	.02	5.13	
239-244	103	Other diseases of stomach (cancer excepted)	2,893	16.36	14	.08	1	.01	42.38	
245-253	105	Diarrhea and enteritis	17,568	99.36	8	.05	6	.03	168.68	
254	106	Ankylostomiasis	69	.39	.....	.....	.....	.....	2.92	
255-259	107	Intestinal parasites	159	.90	.....	.....	.....	.....	2.85	
260	108	Appendicitis	2,137	12.09	12	.07	33	.19	118.44	
261-263	109	Hernia	1,475	8.34	1	.01	7	.04	97.85	
264-267	110a	Diseases of the anus and fecal fistula	194	1.10	2	.01	.....	.....	8.95	
268-272	110b	Other diseases of the intestines	5,735	32.43	22	.12	2	.01	70.48	
275	113	Cirrhosis of liver	15	.08	2	.01	2	.01	1.45	
276	114	Biliary calculi	33	.19	.....	.....	1	.01	2.81	
277-281	115	Other diseases of liver and gall bladder	913	5.16	6	.03	5	.03	31.91	
283-284	117	Simple peritonitis	12	.07	.....	.....	8	.05	.56	
288	119	Acute nephritis	88	.50	1	.01	9	.05	4.63	
289-291	120	Bright's disease	114	.64	22	.12	14	.08	17.69	
293-299	122	Other diseases of the kidney and annexa	109	.62	7	.04	2	.01	9.98	
303-306	124	Diseases of the bladder	447	2.53	45	.25	.....	.....	16.84	
E 304	124b	Enuresis	185	1.05	38	.21	.....	.....	8.93	
307-309	125	Diseases of the urethra, urinary abscess, etc	301	1.70	4	.02	.....	.....	6.47	
310-312	126	Diseases of the prostate	37	.21	.....	.....	.....	.....	1.18	
313-319	127	Diseases of the male genital organs (nonvenereal)	1,188	6.72	6	.03	.....	.....	33.52	
322-323	143	Furuncle and carbuncle	2,627	14.86	.....	.....	1	.01	40.60	
324-325	144	Acute abscess and cellulitis	2,968	16.79	.....	.....	.....	.....	69.94	
352-357	146	Diseases of the bones	467	2.64	26	.15	.....	.....	29.49	
358-360	147	Diseases of the joints	832	4.71	68	.38	.....	.....	50.63	
367	147g	Flat foot	894	5.06	213	1.20	.....	.....	48.91	
372	150	Congenital malformations	678	3.83	13	.07	.....	.....	19.15	
373-374	154	Senility	3	.02	.....	.....	.....	.....	.18	
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	2,432	13.75	.....	.....	.....	.....	51.36	
379	189Ba	Under observation, undiagnosed and unknown	648	3.67	50	.28	5	.03	10.59	
380	189Bb	Malingering	91	.51	.....	.....	.....	.....	2.56	

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[1] Including those occurring in the United States proper from commands on duty in Alaska or in possessions.

tios per 1,000 of mean strength, for the Army (entire), including National Guard—nited States and National Guard—officers and enlisted men, year 1916—Continued.

egulars and National Guard, officers and enlisted men, serving in United States.										National Guard, officers and enlisted men.							
130,394.										65,928.							
dmissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
32	0.25	6	3	0.05	6	6	0.02	3.51	0.03	11	0.17	1	0.02	1	0.02	0.44	0.01
4	.03	11	11	.08	1	1	.01	.54	.00	1	.02					.00	.00
1,430	10.97	11	11	.08				39.46	.30	991	15.03	10	.15			21.81	.33
167	1.28	28	20	.15				7.69	.06	114	1.73	16	.24			3.36	.05
528	4.05	5	5	.04				16.79	.13	394	5.98	4	.06			10.21	.15
801	6.14							41.68	.32	375	5.69					13.86	.21
2,136	16.38	6	6	.05				26.40	.20	1,095	16.61	4	.06			9.74	.15
419	3.21	1	1	.01	1	1	.01	6.29	.05	256	3.88					3.48	.05
48	.37	13	10	.08				4.05	.03	31	.47	5	.08			1.19	.02
5,848	44.85	11	11	.08	1	1	.01	86.73	.67	3,490	52.94	6	.09	1	.02	44.13	.67
87	.67				10	10	.08	5.70	.04	46	.70			1	.02	2.39	.03
468	3.59	4	3	.02	56	55	.42	26.99	.21	304	4.61	1	.02	32	.49	14.11	.21
619	4.75	16	10	.08	2	2	.02	25.13	.19	418	6.34	8	.12	2	.03	9.92	.15
17	.13				2	2	.02	.51	.00	15	.23					.48	.01
171	1.31	21	19	.15				7.80	.06	93	1.41	9	.14			2.81	.04
4	.03	1	1	.01				.31	.00	1	.02					.07	.00
7	.05							.26	.00	2	.03					.14	.00
8	.06							.34	.00	5	.08					.08	.00
760	5.83	6	6	.05				13.75	.11	392	5.95	6	.09			4.83	.07
126	.97	16	16	.12				2.61	.02	63	.96	16	.24			.83	.01
7,924	60.77							104.33	.80	3,780	57.34					43.95	.67
70	.54	10	9	.07	2	2	.02	4.65	.04	44	.67	7	.11	1	.02	1.86	.03
2,337	17.92	14	12	.09	1	1	.01	33.49	.26	1,606	24.36	3	.05	1	.02	15.30	.23
,612	112.06	8	7	.05	3	3	.02	130.97	1.00	12,140	184.14	4	.06	1	.02	94.04	1.44
31	.24							1.58	.01	8	.12					.45	.01
99	8.76							1.87	.01	22	.33					.61	.01
,711	13.12	12	12	.09	28	28	.21	91.67	.70	1,089	16.52	9	.14	15	.23	42.81	.65
,292	9.91	159	151	1.16	5	5	.04	85.78	.64	965	14.64	123	1.87	3	.05	46.80	.71
137	1.05	2	2	.02				6.61	.05	96	1.46	2	.03			3.34	.05
,183	32.08	22	14	.11	1	1	.01	51.00	.39	2,526	38.32	3	.05	1	.02	23.94	.36
13	.10	2	2	.02	2	1	.01	1.42	.01	5	.08	1	.02			.48	.01
25	.19				1	1	.01	2.23	.02	9	.14					.29	.00
718	5.51	5	4	.03	4	4	.03	23.94	.18	466	7.07	2	.03	1	.02	11.67	.18
9	.07				7	7	.05	.48	.00	6	.09			4	.06	.14	.00
46	.35	1	1	.01	7	7	.05	2.60	.02	23	.35	1	.02	2	.03	1.09	.02
80	.61	22	13	.10	13	11	.08	13.62	.10	30	.46	4	.06	2	.03	1.39	.02
77	.59	7	7	.05	2	1	.01	7.04	.05	30	.46	1	.02			.89	.01
374	2.87	45	38	.29				13.67	.10	201	3.05	16	.24			6.14	.09
153	1.17	38	31	.24				7.53	.06	63	.96	9	.14			2.48	.04
180	1.38	4	4	.03				4.69	.04	89	1.35	4	.06			2.21	.03
27	.21							.87	.01	17	.26					.35	.00
980	7.52	6	4	.03				27.64	.21	697	10.57	3	.05			16.17	.25
,907	14.63							28.06	.22	976	14.80					11.37	.17
,154	16.52	1	1	.01				48.36	.37	1,237	18.77	1	.02			22.81	.35
340	2.61	26	21	.16				22.85	.18	194	2.94	15	.23			6.70	.10
685	5.25	67	50	.38				40.48	.31	403	6.11	29	.44			14.20	.22
725	5.56	212	161	1.23				33.38	.29	486	7.37	74	1.12			11.74	.18
498	3.82	13	12	.09				14.19	.11	313	4.75	10	.15			7.01	.11
2	.02							.07	.00								
,064	15.83							40.71	.31	1,789	27.14					35.49	.54
593	4.55	50	49	.38	4	4	.03	8.28	.06	535	8.11	49	.74			5.10	.08
73	.56							2.14	.02	45	.68					.59	.01

Excluding those occurring in the United States proper from commands on duty in Alaska or insular sessions.

TABLE No. 70¼.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi officers and enlisted men, Regulars and National Guard—officers and enlisted me*

Serial Nos.	International classification.	Mean strength / Causes of admission to sick report.	The Army (entire), officers and enlisted men, including National Guard. 176,382 — Admissions. Number.	Admissions. Ratio.	Discharges. Number.	Discharges. Ratio.	Deaths. Number.	Deaths. Ratio.	Noneffectiv Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426–434	155–163	Suicides, all	49	0.28	......	.....	76	0.43	....	...
435	164	Poisoning by food	429	2.43	......	.....	.....	.....	....	...
436	165a	Venomous bites and stings	163	.92	......	.....	.....	.....	....	...
437	165b	Other poisoning (deleterious gases excepted)	82	.46	......	.....	6	.03	....	...
438	166	Conflagration	4	.02	......	.....	3	.02	....	...
439	167	Burns (conflagrations excepted)	588	3.33	......	.....	.....	.....	....	...
440	168	Absorption of deleterious gases	2	.01	......	.....	2	.01	....	...
441	168a	Suffocation, strangulation	3	.02	......	.....	2	.01	....	...
442	169	Drowning, accidental	......	......	......	.....	63	.36	....	...
443	170	Traumatism by firearms (other than specified)	619	3.50	51	0.29	38	.21	....	...
444	170a	Shot by sentry or guard	7	.04	2	.01	5	.03	....	...
445	171	Traumatism by cutting or piercing instruments	1,909	10.80	17	.10	1	.01	....	...
446	172	Traumatism by fall	4,888	27.65	53	.30	16	.09	....	...
447	173	Traumatism in mines and quarries	1	.01	......	.....	1	.01	....	...
448	174	Traumatism by machines	115	.65	2	.01	.....	.....	....	...
449	175	Traumatism by other crushing	1,178	6.66	37	.21	37	.21	....	...
450	176	Injuries by animals	2,139	12.10	4	.02	7	.04	....	...
451	177	Starvation	2	.01	......	.....	1	.01	....	...
452	178	Effects of excessive cold	23	.13	......	.....	.....	.....	....	...
453	179	Effects of heat	1,035	5.85	......	.....	5	.03	....	...
454	180	Effects of lightning	21	.12	1	.01	3	.02	....	...
455	181	Effects of electricity	4	.02	......	.....	1	.01	....	...
456–458	182–4	Homicides, all	13	.07	......	.....	36	.20	....	...
459	185	Fractures, causes not specified	2	.01	......	.....	.....	.....	....	...
460	186	Other external violence	9,202	52.05	35	.20	7	.04	....	...
462–466	....	Killed or wounded in action	42	.24	4	.02	36	.20	....	...
462	....	By bullet	41	.23	4	.02	36	.20	....	...
463	....	By shell	......	......	......	.....	.....	.....	....	...
464	....	By sword or bayonet	......	......	......	.....	.....	.....	....	...
465	....	By bolo, kris, etc	......	......	......	.....	.....	.....	....	...
466	....	By other weapon	1	.01	......	.....	.....	.....	....	...
		DISEASES AND INJURIES GROUPED.								
		General diseases	41,689	235.80	700	3.96	163	.92	1,563.20	
	1–19	Epidemic diseases	21,627	122.32	18	.10	56	.32	484.24	
	20–59	Other general diseases	20,062	113.47	682	3.86	107	.61	1,078.97	
		Diseases of the nervous system and organs of special sense	6,384	36.11	677	3.8	35	.20	310.73	
	60–74	Of the nervous system	2,606	14.74	492	2.78	34	.19	198.92	
	75	Of the eye and its annexa	2,276	12.87	115	.65	.....	.....	65.50	
	76	Of the ear and its annexa	1,502	8.50	70	.40	1	.01	46.31	
	77–85	Diseases of the circulatory system	4,593	25.98	181	1.02	38	.21	193.24	
	86–98	Diseases of the respiratory system	12,061	68.22	75	.42	87	.49	246.69	
	99–118	Diseases of the digestive system	42,169	238.51	261	1.48	73	.41	707.69	
	119–127	Diseases of the genito-urinary system	2,404	13.60	89	.50	25	.14	95.12	
	142–145	Diseases of the skin and cellular tissue	10,025	56.70	19	.11	3	.02	222.59	
	146–149	Diseases of the organs of locomotion	5,476	30.97	347	1.96	1	.01	208.08	
	150	Malformations, etc	678	3.83	13	.07	.....	.....	19.15	
	154	Diseases, results of old age	3	.02	......	.....	.....	.....	.18	
	189	Ill-defined diseases	3,386	19.15	52	.29	5	.03	67.30	
		Total for disease	128,868	728.88	2,414	13.65	430	2.43	3,633.96	
	155–186	External causes	22,982	129.99	277	1.57	346	1.96	655.43	
		Total for disease and external causes	151,850	858.87	2,691	15.22	776	4.39	4,289.39	

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[1] Including those occurring in the United States proper from commands on duty in Alaska or ins ar possessions.

atios per 1,000 of mean strength, for the Army (entire), including National Guard—
nited States and National Guard—officers and enlisted men, year 1916—Continued.

Regulars and National Guard, officers and enlisted men, serving in United States.										National Guard, officers and enlisted men.							
130,394.										65,928.							
Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)											
43	0.33	....	....	....	51	50	0.38	....	....	38	0.58	....	....	11	0.17	....	....
215	1.65	....	....	....	....	....	....	....	....	168	2.55	....	....	....	....	....	....
125	.96	....	....	....	....	....	....	....	....	78	1.18	....	....	....	....	....	....
59	.45	....	....	....	5	5	.04	....	....	23	.35	....	....	1	.02	....	....
2	.02	....	....	....	....	....	....	....	....	2	.03	....	....	....	....	....	....
450	.35	....	....	....	....	....	....	....	....	220	3.31	....	....	....	....	....	....
1	.01	....	....	....	1	1	.01	....	....	1	.02	....	....	....	....	....	....
2	.02	....	....	....	2	2	.02	....	....	1	.02	....	....	....	....	....	....
....	....	....	....	....	39	39	.30	....	....	....	....	....	....	17	.26	....	....
477	3.66	50	38	0.29	32	32	.25	....	....	216	3.28	3	0.05	14	.21	....	....
6	.05	2	1	.01	5	5	.04	....	....	3	.05	....	....	2	.03	....	....
1,386	28.65	17	16	.12	....	1	.01	....	....	550	8.31	7	.11	1	.02	....	....
3,736	28.65	50	29	.22	10	10	.08	....	....	1,626	24.66	6	.09	3	.05	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
82	.13	2	....	....	....	....	....	....	....	48	.73	....	....	....	....	....	....
835	6.40	37	27	.21	28	28	.21	....	....	246	3.73	3	.05	8	.12	....	....
1,736	13.31	4	3	.02	7	7	.05	....	....	979	14.85	2	.03	4	.06	....	....
1	.01	....	....	....	1	1	.01	....	....	1	.02	....	....	1	.02	....	....
16	.12	....	....	....	....	....	....	....	....	2	.03	....	....	....	....	....	....
951	7.29	....	....	....	5	5	.04	....	....	844	12.80	....	....	3	.05	....	....
20	.15	1	1	.01	2	2	.02	....	....	20	.30	....	....	1	.02	....	....
1	.01	....	....	....	1	1	.01	....	....	....	....	....	....	....	....	....	....
6	.05	....	....	....	23	21	.16	....	....	1	.02	....	....	5	.08	....	....
2	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
7,236	55.49	35	22	.17	6	6	.05	....	....	4,185	80.46	10	.15	....	....	....	....
10	.08	4	1	.01	10	9	.07	....	....	1	.02	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	1	.02	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
31,790	243.80	668	474	3.64	134	113	.87	1,176.45	9.02	17,689	268.31	205	3.11	41	.62	411.44	6.24
17,702	135.76	13	9	.07	50	50	.38	370.36	2.84	10,957	166.20	2	.03	25	.38	187.74	2.85
14,088	108.04	655	465	3.57	84	63	.48	806.09	6.18	6,732	102.11	203	3.08	16	.24	223.70	3.39
4,946	37.94	678	501	3.84	30	27	.21	243.54	1.87	2,812	42.65	194	14.00	11	.17	69.73	1.06
2,004	15.37	477	330	2.53	29	26	.20	154.14	1.18	981	14.88	70	1.06	10	.15	30.30	.46
1,735	13.31	113	106	.81	....	....	....	50.79	.39	1,059	16.06	81	1.23	....	....	21.77	.33
1,207	9.26	68	65	.50	1	1	.01	38.61	.30	772	11.71	43	.65	1	.02	17.66	.27
3,544	27.18	179	150	1.15	30	30	.23	145.64	1.12	2,200	33.37	95	1.44	7	.11	62.07	.94
9,846	75.51	73	73	.56	74	61	.47	190.88	1.46	5,760	87.37	33	.50	37	.56	88.69	1.35
34,056	261.88	259	237	1.82	56	55	.42	557.90	4.28	23,221	352.22	177	2.68	28	.42	292.45	4.43
1,864	14.30	89	70	.54	22	19	.15	73.35	.56	1,135	17.22	29	.44	4	.06	28.71	.44
7,235	55.49	18	13	.10	2	2	.02	149.87	1.15	3,945	59.84	7	.11	1	.02	64.45	.98
4,450	34.13	345	265	2.03	1	1	.01	164.40	1.26	2,607	39.54	136	2.06	1	.02	58.10	.88
498	3.82	13	12	.09	....	....	....	14.19	.11	313	4.75	10	.15	....	....	7.01	.11
....	....	....	....	....	....	....	....	.07	.00	....	....	....	....	....	....	....	....
2,875	22.05	52	51	.39	4	4	.03	53.11	.41	2,467	37.42	51	.77	....	....	42.37	.64
01,106	775.39	2,354	1,834	14.07	353	324	2.48	2,769.69	21.24	62,149	942.68	937	14.21	130	1.97	1,125.03	17.06
17,777	136.33	273	197	1.51	229	22	1.73	449.01	3.44	9,162	143.72	65	.99	71	1.08	172.31	2.62
18,883	911.72	2,627	2,031	15.58	582	549	4.21	3,268.41	25.07	71,611	1,086.20	1,002	15.20	201	3.05	1,297.35	19.68

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[1] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

[2] Noneffectiveness for individual external causes not tabulated.

TABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the United States (continental), excluding Alaska officers and total American troops, for the year 1916.*

Serial Nos.	International classification.		Officers, United States.									
		Mean strength	S. G. O., 3,056—A. G. O., 3,383.									
		Causes of admission to sick report.	Admissions. Number.	Admissions. Ratio.	Discharges. Number. (1)	Discharges. Number. (2)	Discharges. Ratio.	Deaths. Number. (1)	Deaths. Number. (2)	Deaths. Ratio.	Noneffective. Number.	Noneffective. Ratio.
1	1	Typhoid fever	3	0.98				2	2	0.59	0.30	0.1
2	1a	Paratyphoid fever	3	.98							.37	.1
7-11	4	Malaria	17	5.56							1.19	.3
7		Estivo-autumnal fever	2	.65							.31	.1
8		Malarial cachexia	2	.65							.06	.2
10		Tertian malarial fever	11	3.60							.21	.0
11		Undetermined malarial fever	2	.65							.01	.0
12	5	Smallpox and varioloid									.05	.0
14	6	Measles	1	.33							.03	.0
17	9	Diphtheria	2	.65							.05	.0
18	10	Influenza	200	65.44				1	1	.30	3.85	1.2
20	13	Cholera nostras	1	.33							.01	.0
21-23	14	Dysentery	21	6.87							2.19	.7
21		Bacillary	1	.33							.02	.0
22		Entamebic	16	5.24							2.07	.6
23		Unclassified	4	1.31							.11	.0
27	18	Erysipelas	1	.33							.04	.0
29	19b	Dengue	36	11.78							.56	.1
34	19g	Mumps	1	.33							.03	.0
37	20	Purulent infection and septicemia	2	.65				1	1	.30	.07	.0
49-57	28-34	Tuberculosis, all	6	1.96				2	2	.59	7.11	2.3
49-51	28	Tuberculosis of lungs	5	1.64				1	1	.30	6.43	2.1
53-57	30-34	Tuberculosis of other organs	1	.33					1	.30	.68	.2
59-74	37-38	Venereal diseases, all	10	3.27							1.39	.4
59-64	37	Syphilis	7	2.29							1.14	.3
65-67	38a	Soft chancre										
68-74	38b	Gonococcus infection	3	.96							.25	.0
75-79	39-45	Cancer and other malignant tumors	5	1.64							1.53	.5
80	46	Benign tumors	3	.98							.11	.0
81-85	47-48	Rheumatism, articular, all	10	3.27							1.03	.4
81-82	47	Acute articular rheumatism	7	2.29							.67	.2
83-85	48	Chronic articular rheumatism	3	.98							.36	.1
87-88	50	Diabetes	1	.33							.11	.0
89	51	Exophthalmic goiter									.17	.0
97-100	56	Alcoholism and results	11	3.60							.33	.1
101-102	57-58	Chronic occupational poisoning										
103-104	59	Other chronic poisoning, including drug habit										
105-106	60	Encephalitis										
107	61	Simple meningitis	1	.33				1	1	.30	.04	.0
108	61a	Epidemic cerebrospinal meningitis										
109	62	Locomotor ataxia										
110-115	63	Other diseases of spinal cord	2	.65							.11	.0
116	64	Cerebral hemorrhage, apoplexy	4	1.31							.40	.1
117-119	66	Paralysis without specified cause	2	.65							.59	.1
120-126	67-68	Mental alienation	8	2.62							1.84	.6
127	69	Epilepsy	3	.98							.18	.0
129-133	73	Neuralgia and neuritis	21	6.87							2.19	.7
138-141	75a	Follicular conjunctivitis	14	4.58							.30	.1
142	75b	Trachoma										
166	77	Pericarditis										
167	78	Acute endocarditis										
169-174	79	Organic heart disease	10	3.27							1.84	.6
175	80	Angina pectoris	1	.33							.19	.0
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	6	1.96				1	1	.30	1.05	.3

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insula possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insula possessions.

TABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the United States (continental), excluding Alaska, officers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.		Officers, United States.									
		Mean strength	S. G. O., 3,056—A. G. O., 3,383.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
178-179	82	Embolism and thrombosis	.....	.....	....	....	....	....	....	.....	0.17	0.06
181	83b	Hemorrhoids	26	8.51	....	....	....	....	....	.....	1.99	.65
183	83d	Varicose veins	3	.98	....	....	....	....	....	.....	.17	.06
184	83e	Varicocele	1	.33	....	....	....	....	....	.....	.....	.....
185-187	84	Diseases of the lymphatic system	1	.33	....	....	....	....	....	.....	.01	.00
193-199	86	Diseases of the nasal fossae	89	29.12	....	....	....	....	....	.....	1.71	.56
200-202	87	Diseases of the larynx	7	2.29	....	....	....	....	....	.....	.05	.02
203-204	88	Diseases of the thyroid body	1	.33	....	....	....	....	....	.....	.46	.15
205-206	89-90	Bronchitis	92	30.10	....	....	....	....	....	.....	1.60	.52
207	91	Bronchopneumonia	4	1.31	....	....	....	2	2	0.59	.25	.08
208	92	Pneumonia	5	1.64	....	....	....	4	4	1.18	.11	.04
209-215	93	Pleurisy	7	2.29	....	....	....	....	....	.....	.34	.11
216-217	94	Pulmonary congestion and pulmonary apoplexy	.....	.....	....	....	....	....	....	.....	.....	.....
219	96	Asthma	8	2.62	....	....	....	....	....	.....	.23	.08
220	97	Pulmonary emphysema	1	.33	....	....	....	....	....	.....	.20	.06
221	98a	Haemoptysis	.....	.....	....	....	....	....	....	.....	.....	.....
222	98b	Hay fever	.....	.....	....	....	....	....	....	.....	.....	.....
24-227	99a	Diseases of the teeth and gums	30	9.82	....	....	....	....	....	.....	1.58	.52
28-231	99b	Other diseases of the mouth and annexa	2	.65	....	....	....	....	....	.....	.01	.00
32-236	100	Diseases of the pharynx	105	34.36	....	....	....	....	....	.....	1.49	.49
238	102	Ulcer of stomach	7	2.29	....	....	....	....	....	.....	.53	.17
39-244	103	Other diseases of stomach (cancer excepted)	30	9.82	....	....	....	....	....	.....	.61	.20
45-253	105	Diarrhea and enteritis	124	40.57	....	....	....	1	1	.30	4.67	1.53
254	106	Ankylostomiasis	.....	.....	....	....	....	....	....	.....	.....	.....
55-259	107	Intestinal parasites	.....	.....	....	....	....	....	....	.....	.....	.....
260	108	Appendicitis	32	10.47	....	....	....	2	2	.59	3.75	1.23
61-263	109	Hernia	14	4.58	....	....	....	....	....	.....	2.19	.72
64-267	110a	Diseases of the anus and faecal fistula	6	1.96	....	....	....	....	....	.....	.23	.08
68-272	110b	Other diseases of the intestines	45	14.73	....	....	....	....	....	.....	1.67	.55
275	113	Cirrhosis of liver	.....	.....	....	....	....	1	1	.30	.11	.03
276	114	Biliary calculi	4	1.31	....	....	....	1	1	.30	.36	.12
77-281	115	Other diseases of liver and gall bladder	10	3.27	....	....	....	....	....	.....	1.20	.39
83-284	117	Simple peritonitis	.....	.....	....	....	....	....	....	.....	.....	.....
288	119	Acute nephritis	.....	.....	....	....	....	....	....	.....	.....	.....
89-291	120	Bright's disease	13	4.25	....	....	....	1	1	.30	3.43	1.12
93-299	122	Other diseases of the kidney and annexa	4	1.31	....	....	....	....	....	.....	.33	.11
03-306	124	Diseases of the bladder	3	.98	....	....	....	....	....	.....	.09	.03
07-309	125	Diseases of the urethra, urinary abscess, etc	1	.33	....	....	....	....	....	.....	.07	.02
10-312	126	Diseases of the prostate	2	.65	....	....	....	....	....	.....	.16	.05
13-319	127	Diseases of the male genital organs (nonvenereal)	7	2.29	....	....	....	....	....	.....	.97	.32
22-323	143	Furuncle and carbuncle	6	1.97	....	....	....	....	....	.....	.20	.06
24-325	144	Acute abscess and cellulitis	17	5.56	....	....	....	....	....	.....	.21	.07
52-357	146	Diseases of the bones	10	3.27	....	....	....	....	....	.....	1.18	.39
58-360	147	Diseases of the joints	19	6.22	....	....	....	....	....	.....	1.76	.58
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	9	2.94	....	....	....	....	....	.....	.11	.04
379	189Ba	Under observation, undiagnosed and unknown	5	1.64	....	....	....	....	....	.....	.40	.13

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insular possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular possessions.

TABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit ratios per 1,000 of mean strength, for the United States (continental), excluding Alask officers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.		Officers, United States.										
		Mean strength	S. G. O., 3,056—A. G. O., 3,383.										
		Causes of admission to sick report.	Admissions. Number.	Admissions. Ratio.	Discharges. Number. (1)	Discharges. Number. (2)	Discharges. Ratio.	Deaths. Number. (1)	Deaths. Number. (2)	Deaths. Ratio.	Noneffective. Number.	Noneffective. Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426–431	155–163	Suicides, all	.....	.....	....	....	....	4	4	1.18	.....	....
435	164	Poisoning by food	3	0.98	....	....	....	....	....	.....	.....	....
436	165a	Venomous bites and stings	2	.65	....	....	....	....	....	.....	.....	....
437	165b	Other poisoning (deleterious gases excepted)	2	.65	....	....	....	....	....	.....	.....	....
439	167	Burns (conflagrations excepted)	2	.65	....	....	....	....	....	.....	.....	....
440	168	Absorption of deleterious gases	.....	.....	....	....	....	....	....	.....	.....	....
441	168a	Suffocation, strangulation	.....	.....	....	....	....	1	1	.30	.....	....
442	169	Drowning, accidental	.....	.....	....	....	....	1	1	.30	.....	....
443	170	Traumatism by firearms (other than specified)	1	.33	....	....	....	....	....	.....	.....	....
444	170a	Shot by sentry or guard	.....	.....	....	....	....	....	....	.....	.....	....
445	171	Traumatism by cutting or piercing instruments	5	1.64	....	....	....	....	....	.....	.....	....
446	172	Traumatism by fall	56	18.32	....	....	....	1	1	.30	.....	....
448	174	Traumatism by machines	1	.33	....	....	....	....	....	.....	.....	....
449	175	Traumatism by other crushing	21	6.87	....	....	....	3	3	.89	.....	....
450	176	Injuries by animals	13	4.25	....	....	....	....	....	.....	.....	....
452	178	Effects of excessive cold	.....	.....	....	....	....	....	....	.....	.....	....
453	179	Effects of heat	.....	.....	....	....	....	....	....	.....	.....	....
454	180	Effects of lightning	.....	.....	....	....	....	....	....	.....	.....	....
455	181	Effects of electricity	.....	.....	....	....	....	....	....	.....	.....	....
456–458	182–4	Homicides, all	.....	.....	....	....	....	1	1	.30	.....	....
459	185	Fractures, causes not specified	.....	.....	....	....	....	....	....	.....	.....	....
460	186	Other external violence	42	13.74	....	....	....	....	....	.....	.....	....
462–466	....	Killed or wounded in action:										
462		By bullet	.....	.....	....	....	....	....	....	.....	.....	....
463	....	By shell	.....	.....	....	....	....	....	....	.....	.....	....
464	....	By sword or bayonet	.....	.....	....	....	....	....	....	.....	.....	....
465	....	By bolo, kris, etc	.....	.....	....	....	....	....	....	.....	.....	....
466	....	By other weapon	.....	.....	....	....	....	....	....	.....	.....	....
		DISEASES AND INJURIES GROUPED.										
	....	General diseases	343	112.23	....	....	....	7	7	2.07	20.62	6
	1–19	Epidemic diseases	293	95.87	....	....	....	3	3	.89	8.70	2
	20–59	Other general diseases	50	16.36	....	....	....	4	4	1.18	11.92	3
	....	Diseases of the nervous system and organs of special sense	145	47.44	....	....	....	1	1	.30	13.57	4
	60–74	Of the nervous system	85	27.81	....	....	....	1	1	.30	9.63	3
	75	Of the eye and its annexa	46	15.05	....	....	....	....	....	.....	2.87	
	76	Of the ear and its annexa	14	4.58	....	....	....	....	....	.....	1.07	
	77–85	Diseases of the circulatory system	50	16.36	....	....	....	1	1	.30	5.46	1
	86–98	Diseases of the respiratory system	214	70.02	....	....	....	6	6	1.77	4.96	1
	99–118	Diseases of the digestive system	409	133.83	....	....	....	5	5	1.48	18.59	6
	119–127	Diseases of the genito-urinary system	41	13.42	....	....	....	1	1	.30	5.58	1
	142–145	Diseases of the skin and cellular tissue	50	16.36	....	....	....	1	1	.30	2.07	
	146–149	Diseases of the organs of locomotion	75	24.54	....	....	....	....	....	.....	4.91	1
	150	Malformations, etc	.....	.....	....	....	....	....	....	.....	.....	....
	154	Diseases results of old age	.....	.....	....	....	....	....	....	.....	.....	....
	189	Ill-defined diseases	15	4.91	....	....	....	....	....	.....	.52	
		Total for disease	1,342	439.14	....	....	....	22	22	6.50	76.27	2
	155–186	External causes	156	51.05	....	....	....	11	11	3.25	11.08	
		Total for disease and external causes	1,498	490.18	....	....	....	33	33	9.75	87.35	2

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insu possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insu possessions.

[3] Noneffectiveness for individual external causes not tabulated.

ABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the United States (continental), excluding Alaska, officers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.		Enlisted men, United States.									
		Mean strength	S. G. O., 61,410—A. G. O., 61,410.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
1	1	Typhoid fever	13	0.21	....	....	....	1	1	0.02	2.42	0.04
2	1a	Paratyphoid fever	19	.31	....	....	....	....	....	....	2.98	.05
7-11	4	Malaria	769	12.52	....	....	....	1	1	.02	20.54	.33
7	....	Estivo-autumnal fever	55	.90	....	....	....	1	1	.02	2.01	.03
8	....	Malarial cachexia	1	.02	....	....	....	....	....	....	.72	.01
9	....	Quartan malarial fever	11	.18	....	....	....	....	....	....	.29	.00
10	....	Tertian malarial fever	644	10.49	....	....	....	....	....	....	16.40	.27
11	....	Undetermined malarial fever	58	.94	....	....	....	....	....	....	1.11	.02
13	5b	Vaccinia	520	8.47	....	....	....	....	....	....	6.17	.10
14	6	Measles	1,246	20.28	2	2	0.03	9	9	.15	52.88	.86
15	7	Scarlet fever	36	.59	....	....	....	2	2	.03	3.13	.05
17	9	Diphtheria	31	.50	....	....	....	....	....	....	1.61	.03
18	10	Influenza	2,343	38.15	....	....	....	1	1	.02	33.49	.55
21-23	14	Dysentery	244	3.97	9	5	.08	7	7	.11	26.15	.43
21	....	Bacillary	32	.52	....	....	....	....	....	....	1.15	.02
22	....	Entamebic	128	2.08	9	5	.08	6	6	.10	21.30	.25
23	....	Unclassified	84	1.37	....	....	....	1	1	.02	3.70	.06
27	18	Erysipelas	43	.70	....	....	....	1	1	.03	2.08	.03
29	19b	Dengue	645	10.50	....	....	....	....	....	....	8.55	.14
31	19d	German measles	11	.18	....	....	....	....	....	....	.30	.00
34	19g	Mumps	201	3.27	....	....	....	....	....	....	9.14	.15
37	20	Purulent infection and septacemia	7	.11	....	....	....	5	5	.08	.22	.00
42-46	25	Mycosis	6	.10	....	....	....	....	....	....	.47	.01
49-57	28-34	Tuberculosis, all	217	3.53	218	119	1.94	33	17	.28	162.15	2.64
49-51	28	Tuberculosis of lungs	198	3.22	207	114	1.86	31	15	.24	155.82	2.54
52	29	Miliary tuberculosis, acute	....	....	....	....	....	1	....	....	.17	.00
53-57	30-34	Tuberculosis of other organs	19	.32	10	5	.08	2	2	.03	6.16	.10
58	36	Scoliosis (rickets)	3	.05	1	....	....	....	....	....	.31	.01
59-74	37-38	Venereal diseases, all	5,603	91.23	158	100	1.63	9	9	.15	342.83	5.58
59-64	37	Syphilis	1,128	18.36	72	40	.65	8	8	.13	115.19	.88
65-67	38a	Soft chancre	1,107	18.02	....	....	....	....	....	....	63.34	1.06
68-74	38b	Gonococcus infection	3,368	54.84	86	60	.98	1	1	.02	162.58	2.65
75-79	39-45	Cancer and other malignant tumors	17	.28	4	3	.05	13	8	.13	4.63	.08
80	46	Benign tumors	91	1.48	2	....	....	....	....	....	3.47	.06
81-85	47-48	Rheumatism, articular, all	414	6.74	18	11	.18	1	1	.02	31.32	.51
81-82	47	Acute articular rheumatism	306	4.98	3	2	.03	1	1	.02	21.89	.36
83-85	48	Chronic articular rheumatism	108	1.76	15	9	.15	....	....	....	1.43	.15
87-88	50	Diabetes	11	.18	9	7	.11	1	1	.02	2.22	.04
89	51	Exophthalmic goiter	16	.26	21	9	.15	....	....	....	4.42	.07
7-100	56	Alcoholism and results	784	12.77	13	9	.15	2	2	.03	13.62	.22
1-102	57-58	Chronic occupational poisoning	2	.03	1	....	....	....	....	....	.22	.00
3-104	59	Other chronic poisoning, including drug habit	19	.31	3	1	.02	....	....	....	1.43	.02
5-106	60	Encephalitis	....	....	....	....	....	....	....	....	....	....
107	61	Simple meningitis	1	.02	1	1	.02	....	....	....	.13	.00
108	61a	Epidemic cerebrospinal meningitis	18	.29	2	1	.02	9	9	.15	1.53	.02
109	62	Locomotor ataxia	12	.20	5	5	.08	1	....	....	3.46	.06
0-115	63	Other diseases of spinal cord	5	.08	2	2	.03	....	....	....	.85	.01
116	64	Cerebral hemorrhage, apoplexy	2	.03	....	....	....	3	3	.05	.01	.00
7-119	66	Paralysis without specified cause	17	.28	3	1	.02	....	....	....	2.25	.04
20-126	67-68	Mental alienation	229	3.73	263	163	2.65	4	2	.03	61.70	1.00
127	69	Epilepsy	106	1.73	75	56	.91	....	....	....	9.73	.16
29-133	73	Neuralgia and neuritis	391	6.37	27	19	.31	1	1	.02	23.73	.39
38-141	75a	Follicular conjunctivitis	328	5.34	3	2	.03	....	....	....	7.30	.12
142	75b	Trachoma	11	.18	3	2	.03	....	....	....	.61	.01
166	77	Pericarditis	5	.08	1	1	.02	1	1	.02	.46	.01
167	78	Acute endocarditis	2	.03	1	1	.02	....	....	....	.42	.01
39-174	79	Organic heart disease	122	1.99	55	40	.65	15	15	.24	14.91	.24

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

TABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi ratios per 1,000 of mean strength, for the United States (continental), excluding Alask officers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.	Mean strength. Causes of admission to sick report.	Enlisted men, United States. S. G. O., 61,410—A. G. O., 61,410. Admissions. Number.	Admissions. Ratio.	Discharges. Number. (1)	Discharges. Number. (2)	Discharges. Ratio.	Deaths. Number. (1)	Deaths. Number. (2)	Deaths. Ratio.	Noneffec tive. Number.	
175	80	Angina pectoris	7	0.11	1	1	0.02	1	1	0.02	0.58	0
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	15	.24	5	2	.03	4	4	.07	2.02	
178-179	82	Embolism and thrombosis	3	.05				1	1	.02	.37	
181	83b	Hemorrhoids	413	6.72	1	1	.02				15.66	
183	83d	Varicose veins	50	.81	12	4	.04				4.16	
184	83e	Varicocele	133	2.17	1	1	.02				6.58	
185-187	84	Diseases of the lymphatic system.	425	6.92							27.80	
193-199	86	Diseases of the nasal fossæ	952	15.50	2	2	.03				14.95	
200-202	87	Diseases of the larynx	156	2.54	1	1	.02	1	1	.02	2.77	
203-204	88	Diseases of the thyroid body	16	.26	8	5	.08				2.41	
205-206	89-90	Bronchitis	2,266	36.89	5	5	.08				41.00	
207	91	Broncho-pneumonia	37	.60				7	7	.11	3.16	
208	92	Pneumonia	159	2.59	3	2	.03	20	19	.31	12.77	
209-215	93	Pleurisy	194	3.16	8	2	.03				14.86	
216-217	94	Pulmonary congestion and pulmonary apoplexy	2	.03			.16	2	2	.03	.03	
219	96	Asthma	70	1.14	12	10					4.76	
220	97	Pulmonary emphysema	2	.03	1	1	.02				.0[illegible]	
221	98a	Hæmoptysis	5	.08							.12	
222	98b	Hay fever	3	.05							.26	
224-227	99a	Diseases of the teeth and gums	338	5.50							7.34	
228-231	99b	Other diseases of the mouth and annexa	61	.99							1.77	
232-236	100	Diseases of the pharynx	4,039	65.77							58.89	
238	102	Ulcer of stomach	19	.31	3	2	.03	1	1	.02	2.26	
239-244	103	Other diseases of stomach (cancer excepted)	701	11.41	11	9	.15				17.58	
245-253	105	Diarrhea and enteritis	2,348	38.23	4	3	.05	1	1	.02	31.26	
254	106	Ankylostomiasis	23	.37							1.13	
255-259	107	Intestinal parasites	77	1.25							1.26	
260	108	Appendicitis	560	9.61	3	3	.05	11	11	.18	45.10	
261-263	109	Hernia	313	5.10	36	28	.46	2	2	.03	36.80	
264-267	110a	Diseases of the anus and fæcal fistula	35	.57							3.0[illegible]	
268-272	110b	Other diseases of the intestines	1,612	26.25	19	11	.18				25.42	
275	113	Cirrhosis of liver	8	.13	1	1	.12	1	1	.02	.83	
276	114	Biliary calculi	12	.20							1.58	
277-281	115	Other diseases of liver and gall bladder	242	3.94	3	2	.03	3	3	.05	11.07	
283-284	117	Simple peritonitis	3	.05				3	3	.05	.33	
288	119	Acute nephritis	23	.37				5	5	.08	1.50	
289-291	120	Bright's disease	37	.60	18	9	.15	10	8	.13	8.90	
293-299	122	Other diseases of the kidney and annexa	43	.70	6	6	.10	2	1	.02	5.91	
303-306	124	Diseases of the bladder	170 90	2.77 1.47	29 29	22 22	.36 .36				7.44 5.05	
307-309	125	Diseases of the urethra, urinary abscess, etc	90	1.47							2.41	
310-312	126	Diseases of the prostate	8	.13							.36	
313-319	127	Diseases of the male genital organs (nonvenereal)	276	4.49	3	1	.02				10.51	
322-323	143	Furuncle and carbuncle	925	15.05							16.49	
324-325	144	Acute abscess and cellulitis	900	14.66							25.33	
352-357	146	Diseases of the bones	136	2.21	11	6	.10				15.17	
358-360	147	Diseases of the joints	263 239	4.28 3.89	38 138	21 87	.34 1.42				24.52 26.59	
372	150	Congenital malformations	185	3.01	3	2	.03				7.18	
373-374	154	Senility	2	.03							.07	
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	266	4.33							5.10	
379	189Ba	Under observation, undiagnosed and unknown	53	.86	1	1	.02	4	4	.07	2.78	
380	189Bb	Malingering	28	.46							1.55	

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insu possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insu possessions.

ABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the United States (continental), excluding Alaska, officers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.		Enlisted men, United States.									
		Mean strength	S. G. O., 61,410 – A. G. O., 61,410.									
			Admissions.		Discharges.			Deaths.			Noneffective.	
		Causes of admission to sick report.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
6-434	155-163	Suicides, all	5	0.08				36	35	0.57		
435	164	Poisoning by food	44	.72								
436	165a	Venomous bites and stings	45	.73								
437	165b	Other poisoning (deleterious gases excepted)	34	.55				4	4	.07		
439	167	Burns (conflagrations excepted)	228	3.71								
440	168	Absorption of deleterious gases						1	1	.02		
441	168a	Suffocation, strangulation	1	.02				1	1	.02		
442	169	Drowning, accidental						21	21	.34		
443	170	Traumatism by firearms (other than specified)	260	4.23	47	35	0.57	18	18	.29		
444	170a	Shot by sentry or guard	3	.05	2	1	.02	3	3	.05		
445	171	Traumatism by cutting or piercing instruments	831	13.53	10	9	.15					
446	172	Traumatism by fall	2,054	33.44	44	23	.37	6	6	.10		
448	174	Traumatism by machines	33	.54	2	2	.03					
449	175	Traumatism by other crushing	568	9.25	34	24	.39	17	17	.28		
450	176	Injuries by animals	744	12.11	2	1	.02	3	3	.05		
452	178	Effects of excessive cold	14	.23								
453	179	Effects of heat	107	1.74				2	2	.03		
454	180	Effects of lightning			1	1	.02	1	1	.02		
455	181	Effects of electricity	1	.02				1	1	.02		
6-458	182-4	Homicides, all	5	.08				17	15	.26		
459	185	Fractures, causes not specified	2	.03								
460	186	Other external violence	3,009	49.00	25	12	.20	6	6	.10		
2-466		Killed or wounded in action	9	.15	4	1	.02	10	9	.15		
462		By bullet	9	.15	4	1	.02	10	9	.15		
463		By shell										
464		By sword or bayonet										
465		By bolo, kris, etc										
466		By other weapon										
		DISEASES AND INJURIES GROUPED.										
		General diseases	13,758	224.04	463	269	4.38	86	65	1.06	744.38	12.12
	1-19	Epidemic diseases	6,452	105.06	11	7	.11	22	22	.36	173.92	2.83
	20-59	Other general diseases	7,306	118.96	452	262	4.27	64	43	.70	570.46	9.29
		Diseases of the nervous system and organs of special sense	1,989	32.38	464	307	5.00	18	15	.24	160.23	2.61
	60-74	Of the nervous system	938	15.27	407	260	4.23	18	15	.24	114.22	1.86
	75	Of the eye and its annexa	630	10.26	32	25	.41				26.14	.43
	76	Of the ear and its annexa	421	6.85	25	22	.36				19.87	.32
	77-85	Diseases of the circulatory system	1,294	21.07	84	55	.90	22	22	.36	78.11	1.27
	86-98	Diseases of the respiratory system	3,872	63.05	40	28	.46	31	30	.49	97.22	1.58
	99-118	Diseases of the digestive system	10,426	169.77	82	60	.98	23	22	.36	246.87	4.02
	119-127	Diseases of the genito-urinary system	688	11.20	60	41	.67	17	14	.23	39.06	.64
	142-145	Diseases of the skin and cellular tissue	3,240	52.76	11	6	.10				83.35	1.36
	146-149	Diseases of the organs of locomotion	1,768	28.79	209	129	2.10				101.39	1.65
	150	Malformations, etc	185	3.01	3	2	.03				7.18	.12
	154	Diseases results of old age	2	.03								
	189	Ill-defined diseases	393	6.43	1	1	.02	4	4	.07	10.22	.17
		Total for disease	37,615	612.52	1,417	897	14.61	201	172	2.80	1,568.09	25.53
	155-186	External causes	8,159	132.86	208	132	2.15	147	143	2.33	315.62	5.14
		Total for disease and external causes	45,774	745.38	1,625	1,029	16.76	348	315	5.13	1,883.71	30.67

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

[3] Noneffectiveness for individual external causes not tabulated.

TABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi ratios per 1,000 of mean strength, for the United States (continental), excluding Alask officers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.		Total, United States.								
		Mean strength	S. G. O., 64,466—A. G. O., 64,793.								
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.
					(1)	(2)		(1)	(2)		
1	1	Typhoid fever	16	0.25	....	....	....	3	3	0.05	2.72
2	1a	Paratyphoid fever	22	.34	....	....	....	...	...	....	3.36
7–11	4	Malaria	786	12.19	....	....	....	1	1	.02	21.72
7	....	Estivo-autumnal fever	57	.88	....	....	....	1	1	.02	2.32
8	....	Malarial cachexia	3	.05	....	....	....	...	...	....	1.38
9	....	Quartan malarial fever	11	.17	....	....	....	...	...	....	.29
10	....	Tertian malarial fever	655	10.16	....	....	....	...	...	....	16.61
11	....	Undetermined malarial fever	60	.93	....	....	....	...	...	....	1.12
13	5	Vaccinia	520	8.07	....	....	....	...	...	....	6.17
14	6	Measles	1,247	19.35	2	2	0.03	9	9	.14	52.91
15	7	Scarlet fever	36	.56	....	....	....	2	2	.03	3.13
17	9	Diphtheria	33	.51	....	....	....	...	...	....	1.66
18	10	Influenza	2,543	39.45	....	....	....	2	2	.03	37.33
20	13	Cholera nostras	1	.02	....	....	....	...	...	....	.01
21–23	14	Dysentery	265	4.11	9	5	.08	7	7	.11	28.34
21	....	Bacillary	33	.51	....	....	....	...	...	....	1.17
22	....	Entamebic	144	2.23	9	5	.08	6	6	.09	23.36
23	....	Unclassified	88	1.37	....	....	....	1	1	.02	3.80
27	18	Erysipelas	44	.68	....	....	....	1	1	.02	2.12
29	19[illegible]	Dengue	681	10.56	....	....	....	...	...	....	9.11
31	19d	German measles	11	.17	....	....	....	...	...	....	.30
34	19g	Mumps	202	3.13	....	....	....	...	...	....	9.17
37	20	Purulent infection and septicemia	9	.14	....	....	....	6	6	.09	.29
42–46	25	Mycosis	6	.09	....	....	....	...	...	....	.47
49–57	28–34	Tuberculosis, all	223	3.46	218	119	1.91	35	19	.29	169.26
49–51	28	Tuberculosis of lungs	203	3.15	207	114	1.86	32	16	.25	162.24
52	29	Miliary tuberculosis, acute	.....	.....	1	....	....	...	...	....	.17
53–57	30–31	Tuberculosis of other organs	20	.32	10	5	.09	3	3	.05	6.85
58	36	Scoliosis (rickets)	3	.05	1	....	....	...	...	....	.31
59–74	37–38	Venereal diseases, all	5,613	87.07	158	100	1.63	9	9	.14	314.23
59–61	37	Syphilis	1,135	17.61	72	40	.65	8	8	.12	116.33
65–67	38a	Soft chancre	1,107	17.17	....	....	....	...	...	....	63.34
68–74	38b	Gonococcus infection	3,371	52.30	86	60	.98	1	1	.02	162.84
75–79	39–45	Cancer and other malignant tumors	22	.34	4	3	.05	13	8	.12	6.16
80	46	Benign tumors	94	1.46	2	....	....	...	...	....	3.58
81–85	47–48	Rheumatism, articular, all	424	6.58	18	11	.18	1	1	.02	32.35
81–82	47	Acute articular rheumatism	313	4.86	3	2	.02	1	1	.02	22.56
83–85	48	Chronic articular rheumatism	111	1.72	15	9	.15	...	...	....	9.79
87–88	50	Diabetes	12	.19	9	7	.11	1	1	.02	2.34
89	51	Exophthalmic goiter	16	.25	21	9	.15	...	...	....	4.58
97–100	56	Alcoholism and results	795	12.33	13	9	.15	2	2	.03	13.95
101–102	57–58	Chronic occupational poisoning	2	.03	1	....	....	...	...	....	.22
103–104	59	Other chronic poisoning, including drug habit	19	.2[illegible]	3	1	.02	...	...	....	1.43
105–106	60	Encephalitis	.....	.....	.....	.....	.....	...	...	....	....
107	61	Simple meningitis	2	.03	1	1	.02	1	1	.02	.17
108	61a	Epidemic cerebrospinal meningitis	18	.28	2	1	.02	9	9	.14	1.53
109	62	Locomotor ataxia	12	.19	5	5	.08	1	...	....	3.46
110–115	63	Other diseases of spinal cord	7	.11	2	2	.03	...	...	....	.96
116	64	Cerebral hemorrhage, apoplexy	6	.09	....	....	....	3	3	.05	.42
117–119	66	Paralysis without specified cause	19	.29	3	1	.02	...	...	....	2.84
120–126	67–68	Mental alienation	237	3.68	263	163	2.65	4	2	.03	63.51
127	69	Epilepsy	109	1.69	75	56	.91	...	...	....	9.92
129–133	73	Neuralgia and neuritis	412	6.39	27	19	.31	1	1	.02	25.91
138–141	75a	Follicular conjunctivitis	342	5.31	3	2	.03	...	...	....	7.60
142	75b	Trachoma	11	.17	3	2	.03	...	...	....	.61
166	77	Pericarditis	5	.08	1	1	.02	1	1	.02	.46
167	78	Acute endocarditis	2	.03	1	1	.02	...	...	....	.42
169–174	79	Organic heart disease	132	2.05	55	40	.65	15	15	.23	16.75
175	80	Angina pectoris	8	.12	1	1	.02	1	1	.02	.77

[1] Including those occurring in the United States proper from commands on duty in Alaska or ins possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or ins possessions.

BLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the United States (continental), excluding Alaska, fficers and total American troops, for the year 1916*—Continued.

Serial Nos.	International classification.	Mean strength.	Total, United States. S. G. O., 64,466—A. G. O., 64,793.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
-177½	81	Diseases of the arteries, atheroma, aneurism, etc.	21	0.33	5	2	0.03	5	5	0.08	3.07	0.05
-179	82	Embolism and thrombosis	3	.05	.....	.....	.....	1	1	.02	.54	.01
181	83b	Hemorrhoids	439	6.81	1	1	.02	...	...	....	17.65	.27
183	83d	Varicose veins	53	.82	12	4	.07	...	...	....	4.33	.07
184	83e	Variocele	134	2.08	1	1	.02	...	...	....	6.58	.10
-187	84	Diseases of the lymphatic system	426	6.61	.....	.....	.....	...	...	....	27.82	.43
-199	86	Diseases of the nasal fossæ	1,041	16.15	2	2	.03	...	...	....	16.66	.26
-202	87	Diseases of the larynx	163	2.53	1	1	.02	1	1	.02	2.81	.04
-204	88	Diseases of the thyroid body	17	.26	8	5	.08	...	...	....	2.87	.04
-206	89-90	Bronchitis	2,358	36.58	5	5	.08	...	...	....	42.60	.66
207	91	Broncho-pneumonia	41	.64	.....	.....	.....	9	9	.14	3.41	.05
208	92	Pneumonia	164	2.54	3	2	.03	24	23	.35	12.88	.20
-215	93	Pleurisy	201	3.12	8	2	.03	...	...	....	15.20	.24
-217	94	Pulmonary congestion and pulmonary apoplexy	2	.03	.....	.....	.....	2	2	.03	.03	.00
219	96	Asthma	78	1.21	12	10	.16	...	...	....	4.99	.08
220	97	Pulmonary emphysema	3	.05	1	1	.02	...	...	....	.24	.00
221	98a	Hæmoptysis	5	.08	.....	.....	.....	...	...	....	.12	.00
222	98b	Hay fever	3	.05	.....	.....	.....	...	...	....	.26	.00
-227	99a	Diseases of the teeth and gums	368	5.71	.....	.....	.....	...	...	....	8.92	.14
-231	99b	Other diseases of the mouth and annexa	63	.98	.....	.....	.....	...	...	....	1.78	.03
-236	100	Diseases of the pharynx	4,144	64.28	.....	.....	.....	...	...	....	60.38	.94
238	102	Ulcer of stomach	26	.40	3	2	.03	1	1	.02	2.79	.04
-244	103	Other diseases of stomach (cancer excepted)	731	11.34	11	9	.15	...	...	....	18.19	.28
-253	105	Diarrhea and enteritis	2,472	38.35	4	3	.05	2	2	.03	35.93	.56
254	106	Ankylostomiasis	23	.36	.....	.....	.....	...	...	....	1.13	.02
-259	107	Intestinal parasites	77	1.19	.....	.....	.....	...	...	....	1.26	.02
260	108	Appendicitis	622	9.65	3	3	.05	13	13	.20	48.86	.76
-263	109	Hernia	327	5.07	36	28	.46	2	2	.03	38.98	.60
-267	110a	Diseases of the anus and fæcal fistula	41	.64	.....	.....	.....	...	...	....	3.27	.05
-272	110b	Other diseases of the intestines	1,657	25.71	19	11	.18	...	...	....	27.09	.42
275	113	Cirrhosis of liver	8	.12	1	1	.02	2	2	.02	.94	.01
276	114	Biliary calculi	16	.25	.....	.....	.....	1	1	.02	1.94	.03
-281	115	Other diseases of liver and gall bladder	252	3.91	3	2	.03	3	3	.05	12.27	.19
-284	117	Simple peritonitis	3	.05	.....	.....	.....	3	3	.05	.33	.01
288	119	Acute nephritis	23	.36	.....	.....	.....	5	5	.08	1.50	.02
-291	120	Bright's disease	50	.78	18	9	.15	11	9	.15	12.32	.19
-299	122	Other diseases of the kidney and annexa	47	.73	6	6	.10	2	1	.02	6.24	.10
-306	124	Diseases of the bladder	173	2.68	29	22	.36	...	...	....	7.52	.12
			90	1.40	29	22	.36	...	...	....	5.05	.08
-309	125	Diseases of the urethra, urinary abscess, etc.	91	1.41	.....	.....	.....	...	...	....	2.48	.04
-312	126	Diseases of the prostate	10	.16	.....	.....	.....	...	...	....	.52	.01
-319	127	Diseases of the male genital organs (nonvenereal)	283	4.39	3	1	.02	...	...	....	11.48	.18
-323	143	Furuncle and carbuncle	931	14.46	.....	.....	.....	...	...	....	16.70	.26
-325	144	Acute abscess and cellulitis	917	14.22	.....	.....	.....	...	...	....	25.55	.39
-357	146	Diseases of the bones	146	2.26	11	6	.10	...	...	....	16.35	.25
-360	147	Diseases of the joints	282	4.37	38	21	.34	...	...	....	26.28	.41
			239	3.71	138	87	1.42	...	...	....	26.59	.41
372	150	Congenital malformations	185	2.87	3	2	.03	...	...	....	7.18	.11
-374	154	Senility	2	.03	.....	.....	.....	...	...	....	.07	.00
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	275	4.27	.....	.....	.....	...	...	....	5.22	.....
379	189Ba	Under observation, undiagnosed and unknown	58	.90	1	1	.02	4	4	.06	3.18	.05
380	189Bb	Malingering	28	.43	.....	.....	.....	...	...	....	1.55	.02

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ssessions.

TABLE 70½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, u ratios per 1,000 of mean strength, for the United States (continental), excluding Alas officers and total American troops, for the year 1916*—Continued.

			Total, United States.								
		Mean strength	S. G. O., 64,466—A. G. O., 64,793.								
			Admissions.		Discharges.			Deaths.			Noneffective.
					Number.			Number.			
Serial Nos.	International classification.	Causes of admission to sick report.	Number.	Ratio.	(1)	(2)	Ratio.	(1)	(2)	Ratio.	Number.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]									
426–434	155–163	Suicides, all	5	0.08	....	....	....	40	39	0.60	....
435	164	Poisoning by food	47	.73	....	....	....	....	....	....	....
436	165a	Venomous bites and stings	47	.73	....	....	....	....	....	....	....
437	165b	Other poisoning (deleterious gases excepted)	36	.56	....	....	....	4	4	.06	....
439	167	Burns (conflagrations excepted)	230	3.57	....	....	....	....	....	....	....
440	168	Absorption of deleterious gases	....	....	....	....	....	1	1	.02	....
441	168a	Suffocation, strangulation	1	.02	....	....	....	2	2	.03	....
442	169	Drowning, accidental	....	....	....	....	....	22	22	.34	....
443	170	Traumatism by firearms (other than specified)	261	4.05	47	35	0.57	18	18	.28	....
444	170a	Shot by sentry or guard	3	.05	2	1	.02	3	3	.05	....
445	171	Traumatism by cutting or piercing instruments	836	12.97	10	9	.15	....	....	....	....
446	172	Traumatism by fall	2,110	32.73	44	23	.37	7	7	.11	....
448	174	Traumatism by machines	34	.53	2	2	.03	....	....	....	....
449	175	Traumatism by other crushing	589	9.14	34	24	.39	20	20	.31	....
450	176	Injuries by animals	757	11.74	2	1	.02	3	3	.05	....
452	178	Effects of excessive cold	14	.22	....	....	....	....	....	....	....
453	179	Effects of heat	107	1.66	....	....	....	2	2	.03	....
454	180	Effects of lightning	....	....	1	1	.02	1	1	.02	....
455	181	Effects of electricity	1	.02	....	....	....	1	1	.02	....
456–458	182–4	Homicides, all	5	.08	....	....	....	18	16	.25	....
459	185	Fractures, causes not specified	2	.03	....	....	....	....	....	....	....
460	186	Other external violence	3,051	47.33	25	12	.20	6	6	.09	....
462–466	....	Killed or wounded in action	9	.14	4	1	.02	10	9	.14	....
462	....	By bullet	9	.14	4	1	.02	10	9	.14	....
463	....	By shell	....	....	....	....	....	....	....	....	....
464	....	By sword or bayonet	....	....	....	....	....	....	....	....	....
465	....	By bolo, kris, etc	....	....	....	....	....	....	....	....	....
466	....	By other weapon	....	....	....	....	....	....	....	....	....
		DISEASES AND INJURIES GROUPED.									
	....	General diseases	14,101	218.74	463	269	4.38	93	72	1.11	765.00
	1–19	Epidemic diseases	6,745	104.63	11	7	.11	25	25	.39	182.62
	20–59	Other general diseases	7,356	114.11	452	262	4.27	68	47	.73	582.39
	....	Diseases of the nervous system and organs of special sense	2,134	33.11	464	307	5.00	19	16	.25	173.80
	60–74	Of the nervous system	1,023	15.87	407	260	4.23	19	16	.25	123.84
	75	Of the eye and its annexa	676	10.49	32	25	.41	....	....	....	29.01
	76	Of the ear and its annexa	435	6.75	25	22	.36	....	....	....	20.95
	77–85	Diseases of the circulatory system	1,344	20.85	84	55	.90	23	23	.35	83.57
	86–98	Diseases of the respiratory system	4,086	63.38	40	28	.46	37	36	.56	102.19
	99–118	Diseases of the digestive system	10,835	168.07	82	60	.98	28	27	.42	265.45
	119–127	Diseases of the genito-urinary system	729	11.31	60	41	.67	18	15	.23	44.64
	142–145	Diseases of the skin and cellular tissue	3,290	51.04	11	6	.10	1	1	.02	85.41
	146–149	Diseases of the organs of locomotion	1,843	28.59	209	129	2.10	....	....	....	106.30
	150	Malformations, etc	185	2.87	3	2	.03	....	....	....	7.18
	154	Diseases results of old age	2	.03	....	....	....	....	....	....	....
	189	Ill-defined diseases	408	6.33	1	1	.02	4	4	.06	10.74
		Total for disease	38,957	604.30	1,417	897	14.61	223	194	2.99	1,644.36
	155–186	External causes	8,315	128.98	208	132	2.15	158	154	2.38	326.70
		Total for disease and external causes	47,272	733.29	1,625	1,029	16.76	381	348	5.37	1,971.06

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[1] Including those occurring in the United States proper from commands on duty in Alaska or ins possessions.

[2] Excluding those occurring in the United States proper from commands on duty in Alaska or ins possessions.

[3] Noneffectiveness for individual external causes not tabulated.

TABLE 71.—*Admissions to sick report, discharges, deaths, and noneffectiveness, w*
continental, excludi

Serial Nos.	International classification.		United States, total enlisted men, white and colore								
		Mean strength	S. G. O., 61,410—A. G. O., 61,410.								
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.
			Number.	Ratio.	Number. (¹)	Number. (²)	Ratio.	Number. (¹)	Number. (²)	Ratio.	Number.
1	1	Typhoid fever	13	0.21	....	....	....	1	1	0.02	2.42
2	1a	Paratyphoid fever	19	.31	....	....	....	...	...	....	2.98
7–11	4	Malaria	769	12.52	....	....	....	1	1	.02	20.54
7	....	Æstivo-autumnal fever	55	.90	....	....	....	1	1	.02	2.01
8	....	Malarial cachexia	1	.02	....	....	....	...	...	....	.72
9	....	Quartan malarial fever	11	.18	....	....	....	...	...	....	.29
10	....	Tertian malarial fever	644	10.49	....	....	....	...	...	....	16.40
11	....	Undetermined malarial fever	58	.94	....	....	....	...	...	....	1.11
13	5b	Vaccinia	520	8.47	....	....	....	...	...	....	6.17
14	6	Measles	1,246	20.28	2	2	.03	9	9	.15	52.88
15	7	Scarlet fever	36	.59	....	....	....	2	2	.03	3.13
17	9	Diphtheria	31	.50	....	....	....	...	...	....	1.61
18	10	Influenza	2,343	38.15	....	....	....	1	1	.02	33.49
21–23	14	Dysentery	244	3.97	9	5	.08	7	7	.11	26.15
21	....	Bacillary	32	.52	....	....	....	...	...	....	1.25
22	....	Entamœbic	128	2.08	9	5	.08	6	6	.10	21.30
23	....	Unclassified	84	1.37	....	....	....	1	1	.02	3.70
27	18	Erysipelas	43	.70	....	....	....	1	1	.02	2.08
29	19b	Dengue	645	10.50	....	....	....	...	...	....	8.55
31	19d	German measles	11	.18	....	....	....	...	...	....	....
34	19g	Mumps	201	3.27	....	....	....	...	...	....	9.14
37	20	Purulent infection and septicæmia	7	.11	....	....	....	5	5	.08	.22
42–46	25	Mycoses	6	.10	....	....	....	...	...	....	.47
49–57	28–34	Tuberculosis, all	217	3.53	218	119	1.94	33	17	.28	162.15
49–51	28	Tuberculosis of lungs	198	3.22	207	114	1.86	31	15	.24	155.82
52	29	Miliary tuberculosis, acute	......	......	1	....	....	...	...	....	.17
53–57	30–34	Tuberculosis of other organs	19	.32	10	5	.09	2	2	.03	6.16
58	36	Scoliosis (rickets)	3	.05	1	1	.02	...	...	....	.31
59–74	37–38	Venereal diseases, all	5,603	91.23	158	100	1.63	9	9	.15	342.83
59–64	37	Syphilis	1,128	18.36	72	40	.65	8	8	.13	115.19
65–67	38a	Soft chancre	1,107	18.02	....	....	....	...	...	....	65.06
68–74	38b	Gonococcus infection	3,368	54.84	86	60	.98	1	1	.02	162.58
75–79	39–45	Cancer and other malignant tumors	17	.28	4	3	.05	13	8	.13	4.63
80	46	Benign tumors	91	1.48	2	....	....	...	...	....	3.47
81–85	47–48	Rheumatism, articular, all	414	6.74	18	11	.18	1	1	.02	31.32
81–82	47	Acute articular rheumatism	306	4.98	3	2	.03	1	1	.02	21.89
83–85	48	Chronic articular rheumatism	108	1.76	15	9	.15	...	...	....	9.43
87–88	50	Diabetes	11	.18	9	7	.11	1	1	.02	2.22
89	51	Exophthalmic goiter	16	.26	21	9	.15	...	...	....	4.42
97–100	56	Alcoholism and results	784	12.77	13	9	.15	2	2	.03	13.62
101–102	57–58	Chronic occupational poisoning	2	.03	1	1	.02	...	...	....	.22
103–104	59	Other chronic poisoning, including drug habit	19	.31	3	1	.02	...	...	....	1.43
105–106	60	Encephalitis	......	......	....	....	....	...	...	....	....
107	61	Simple meningitis	1	.02	1	1	.02	...	...	....	.13
108	61a	Epidemic cerebrospinal meningitis	18	.29	2	1	.02	9	9	.15	1.53
109	62	Locomotor ataxia	12	.20	5	5	.08	1	1	.02	3.46
110–115	63	Other diseases of spinal cord	5	.08	2	1	.02	...	...	....	.85
116	64	Cerebral hemorrhage, apoplexy	2	.03	....	....	....	3	3	.05	.01
117–119	66	Paralysis without specified cause	17	.28	3	1	.02	...	...	....	2.25
120–126	67–68	Mental alienation	229	3.73	263	163	2.65	4	2	.03	61.70
127	69	Epilepsy	106	1.73	75	56	.91	...	...	....	9.73
129–133	73	Neuralgia and neuritis	391	6.37	27	19	.31	1	1	.02	23.73
138–141	75a	Follicular conjunctivitis	328	5.34	3	2	.03	...	...	....	7.30
142	75b	Trachoma	11	.18	3	2	.03	...	...	....	.61
166	77	Pericarditis	5	.08	1	1	.02	1	1	.02	.46
167	78	Acute endocarditis	2	.03	1	1	.02	...	...	....	.42
169–174	79	Organic heart disease	122	1.99	55	49	.65	15	15	.24	14.91
175	80	Angina pectoris	7	.11	1	1	.02	1	1	.02	.58

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¹ Including those occurring in the United States proper from commands on duty in Alaska or ins
possessions.

tios per 1,000 of mean strength, for enlisted American troops serving in the United States, laska, for the year 1916.

United States, white, enlisted men. S. G. O., 60,581—A. G. O., 60,581.										United States, colored, enlisted men. S. G. O., 829—A. G. O., 829.									
Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
umber.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
13	0.21	....	....	....	1	1	0.02	2.42	0.04	....	....	....	....	....	....	....	....	....	....
19	.31	....	....	....	....	....	....	2.98	.05	....	....	....	....	....	....	....	....	....	....
760	12.54	....	....	....	1	1	.02	20.01	.33	9	10.56	....	....	....	....	....	....	0.52	0.63
53	.87	....	....	....	1	1	.02	1.77	.03	2	2.41	....	....	....	....	....	....	.24	.29
1	.02	....	....	....	....	....	....	.72	.01	....	....	....	....	....	....	....	....	....	....
11	.18	....	....	....	....	....	....	.29	.00	....	....	....	....	....	....	....	....	....	....
638	10.53	....	....	....	....	....	....	16.14	.27	6	7.24	....	....	....	....	....	....	.26	.31
57	.94	....	....	....	....	....	....	1.08	.02	1	1.21	....	....	....	....	....	....	.02	.03
518	8.55	....	....	....	....	....	....	6.01	.10	[illegible]	.41	....	....	....	....	....	....	.16	.19
,242	20.50	2	2	.03	9	9	.15	52.71	.87	4	4.83	....	....	....	....	....	....	.17	.20
36	.59	....	....	....	2	2	.03	3.13	.05	....	....	....	....	....	....	....	....	....	....
28	.46	....	....	....	....	....	....	1.49	.02	3	3.62	....	....	....	....	....	....	.12	.14
,313	38.18	....	....	....	1	1	.02	32.77	.54	30	36.19	....	....	....	....	....	....	.72	.87
236	3.90	9	5	.08	7	7	.12	24.48	.40	8	9.65	....	....	....	....	....	....	1.67	2.02
32	.53	....	....	....	....	....	....	1.09	.02	....	....	....	....	....	....	....	....	.06	.08
122	2.01	9	5	.08	6	6	.10	19.80	.33	6	7.24	....	....	....	....	....	....	1.50	1.81
82	1.35	....	....	....	1	1	.02	3.59	.06	2	2.41	....	....	....	....	....	....	.11	.13
39	.64	....	....	....	1	1	.02	1.82	.03	4	4.83	....	....	....	....	....	....	.26	.32
645	10.65	....	....	....	....	....	....	8.55	.14	....	....	....	....	....	....	....	....	....	....
11	.18	....	....	....	....	....	....	.29	.00	....	....	....	....	....	....	....	....	....	....
199	3.28	....	....	....	....	....	....	9.10	.15	2	2.41	....	....	....	....	....	....	.05	.06
7	.12	....	....	....	5	5	.08	.22	.00	....	....	....	....	....	....	....	....	....	....
6	.10	....	....	....	....	....	....	.47	.01	....	....	....	....	....	....	....	....	....	....
210	3.47	186	114	1.88	26	13	.21	145.46	2.40	7	8.44	32	5	6.03	7	4	4.83	16.69	20.13
191	3.15	175	109	1.80	25	12	.20	139.42	2.30	7	8.44	32	5	6.03	6	[illegible]	3.62	16.40	19.78
....	....	1	....	....	....	....	....	.17	.00	....	....	....	....	....	....	....	....	....	....
19	.32	10	5	.09	1	1	.02	5.18	.09	....	....	....	....	....	1	1	1.21	.28	.34
3	.05	1	1	.02	....	....	....	.31	.01	....	....	....	....	....	....	....	....	....	....
,473	90.34	133	95	1.57	8	8	.13	326.04	5.38	130	156.82	25	5	6.03	1	1	1.21	16.80	20.26
,090	17.99	62	39	.64	7	7	.12	107.61	1.78	38	45.84	10	1	1.21	1	1	1.21	7.58	9.14
,092	18.02	....	....	....	....	....	....	63.57	1.05	15	18.09	....	....	....	....	....	....	1.49	1.80
,291	54.32	71	56	.92	1	1	.02	154.86	2.56	77	92.88	15	4	4.83	....	....	....	7.73	9.32
17	.28	4	3	.05	13	8	.13	4.45	.07	....	....	....	....	....	....	....	....	.18	.21
91	1.50	1	....	....	....	....	....	3.39	.06	....	....	1	....	....	....	....	....	.08	.10
405	6.69	15	11	.18	1	1	.02	28.53	.48	9	10.86	3	....	....	....	....	....	2.78	3.36
299	4.94	2	2	.03	1	1	.02	19.72	.33	7	8.44	1	....	....	....	....	....	2.17	2.62
106	1.75	13	9	.15	....	....	....	8.81	.15	2	2.41	2	....	....	....	....	....	.61	.74
10	.17	8	7	.12	1	1	.02	2.03	.03	1	1.21	1	1	1.21	....	....	....	.19	.23
15	.25	20	8	.13	....	....	....	4.05	.07	1	1.21	1	1	1.21	....	....	....	.37	.45
778	12.84	12	9	.15	2	2	.03	13.43	.22	6	7.24	1	....	....	....	....	....	.19	.23
2	.03	1	1	.02	....	....	....	.22	.00	....	....	....	....	....	....	....	....	....	....
19	.31	3	1	.02	....	....	....	1.43	.02	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1	.02	1	1	.02	....	....	....	.13	.00	....	....	....	....	....	....	....	....	....	....
18	.30	2	1	.02	9	9	.15	1.53	.03	....	....	....	....	....	....	....	....	....	....
12	.20	5	5	.08	1	1	.02	3.46	.06	....	....	....	....	....	....	....	....	....	....
5	.08	2	1	.02	....	....	....	.85	.01	....	....	....	....	....	....	....	....	....	....
2	.03	....	....	....	3	3	.05	.01	.00	....	....	....	....	....	....	....	....	....	....
17	.28	2	....	....	....	....	....	2.24	.04	....	....	1	1	1.21	....	....	....	.01	.01
226	3.73	270	162	2.67	4	2	.03	58.00	.96	3	3.62	13	1	1.21	....	....	....	3.60	4.46
106	1.75	75	56	.92	....	....	....	9.58	.16	....	....	....	....	....	....	....	....	.15	.18
386	6.37	27	19	.31	1	1	.02	22.93	.38	5	6.03	....	....	....	....	....	....	.80	.96
326	5.38	3	2	.03	....	....	....	7.22	.12	2	2.41	....	....	....	....	....	....	.08	.09
11	.18	3	2	.03	....	....	....	.61	.01	....	....	....	....	....	....	....	....	....	....
5	.09	1	1	.02	1	1	.02	.46	.01	....	....	....	....	....	....	....	....	....	....
2	.03	1	1	.02	....	....	....	.42	.01	....	....	....	....	....	....	....	....	....	....
118	1.95	51	39	.64	15	15	.25	13.36	.22	4	4.83	4	1	1.21	....	....	....	1.55	1.87
7	.12	1	1	.02	1	1	.02	.58	.01	....	....	....	....	....	....	....	....	....	....

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[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ssessions.

TABLE 71.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
continental, excludin

Serial Nos.	International classification.		United States, total enlisted men, white and colored.										
		Mean strength	S. G. O., 61,410—A. G. O., 61,410.										
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	
					(1)	(2)		(1)	(2)				
176–177½	81	Diseases of the arteries, atheroma, aneurism, etc	15	0.24	5	2	0.03	4	4	0.07	2.02		
178–179	82	Embolism and thrombosis	3	.05				1	1	.02	.37		
181	83b	Hemorrhoids	413	6.72	1	1	.02				15.66		
183	83d	Varicose veins	50	.81	12	4	.07				4.16		
184	83e	Varicocele	133	2.17	1	1	.02				6.58		
185–187	84	Diseases of the lymphatic system	425	6.92							27.80		
193–199	86	Diseases of the nasal fossæ	952	15.50	2	2	.03				14.95		
200 202	87	Diseases of the larynx	156	2.54	1	1	.02	1	1	.02	2.77		
203-204	88	Diseases of the thyroid body	16	.26	8	5	.08				2.41		
205-206	89-90	Bronchitis	2,266	36.89	5	5	.08				41.00		
207	91	Broncho-pneumonia	37	.60				7	7	.11	3.16		
208	92	Pneumonia	159	2.59	3	2	.03	20	19	.31	12.77		
209-215	93	Pleurisy	194	3.16	8	2	.03				14.86		
216-217	94	Pulmonary congestion and pulmonary apoplexy	2	.03				2	2	.03	.03		
219	96	Asthma	70	1.14	12	10	.16				4.76		
220	97	Pulmonary emphysema	2	.03	1	1	.02				.04		
221	98a	Hæmoptysis	5	.08							.12		
222	98b	Hay fever	3	.05							.26		
224-227	99a	Diseases of the teeth and gums	338	5.50							7.34		
228-231	99b	Other diseases of mouth and annexa	61	.99							1.77		
232-236	100	Diseases of the pharynx	4,039	65.77							58.89		
238	102	Ulcer of stomach	19	.31	3	2	.03	1	1	.02	2.26		
239-244	103	Other diseases of stomach (cancer excepted)	701	11.41	11	9	.15				17.58		
245-253	105	Diarrhea and enteritis	2,348	38.23	4	3	.05	1	1	.02	31.26		
254	106	Ankylostomiasis	23	.37							1.13		
255-259	107	Intestinal parasites	77	1.25							1.26		
260	108	Appendicitis	590	9.61	3	3	.05	11	11	.18	45.10		
261-263	109	Hernia	313	5.10	36	28	.46	2	2	.03	36.80		
264-267	110a	Diseases of the anus and fæcal fistula	35	.57							3.04		
268-272	110b	Other diseases of the intestines	1,612	26.25	19	11	.18				25.42		
275	119	Cirrhosis of liver	8	.13	1	1	.02	1	1	.02	.83		
276	114	Biliary calculi	12	.20							1.58		
277-281	115	Other diseases of liver and gall bladder	242	3.94	3	2	.03	3	3	.05	11.07		
283-284	117	Simple peritonitis	3	.05				3	3	.05	.33		
288	119	Acute nephritis	23	.37				5	5	08	1.50		
289-291	120	Bright's disease	37	.60	18	9	.15	10	8	.13	8.90		
293-299	122	Other diseases of the kidney and annexa	43	.70	6	6	.10	2	1	.02	5.91		
303-306	124	Diseases of the bladder	170	2.77	29	22	.36				7.44		
304	124b	Enuresis											
307-309	125	Diseases of the uretha, urinary abscess, etc	90	1.47							2.41		
310-312	126	Diseases of the prostate	8	.13							.36		
313-319	127	Diseases of the male genital organs (nonvenereal)	276	4.49	3	1	.02				10.51		
322-323	143	Furuncle and carbuncle	925	15.05							16.50		
324-325	144	Acute abscess and cellulitis	900	14.66							25.33		
352-357	146	Diseases of the bones	136	2.21	11	6	.10				15.17		
358-360	147	Diseases of the joints	263	4.28	38	21	.34				24.52		
367	147g	Flat foot											
372	150	Congenital malformations	185	3.01	3	2	.03				7.18		
373-374	154	Senility	2	.03							.07		
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	266	4.33							5.10		
379	189Ba	Under observation, undiagnosed and unknown	53	.86	1	1	.02	4	4	.07	2.78		
380	189Bb	Malingering	28	.46							1.55		

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[1] Including those occurring in the United States proper from commands on duty in Alaska or insul
possessions.

tios per 1,000 of mean strength for enlisted American troops serving in the United States, laska, for the year 1916—Continued.

United States, white, enlisted men. S. G. O., 60,581—A. G. O., 60,581.										United States, colored, enlisted men. S. G. O., 829—A. G. O., 829.									
Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
14	0.23	5	2	0.03	4	4	0.07	1.59	0.03									0.43	0.52
3	.05				1	1	.02	.37	.01										
401	6.62	1	1	.02				14.11	.23	12	14.48							1.55	1.87
50	.83	12	4	.07				4.16	.07										
132	2.18	1	1	.02				6.57	.11	1	1.21							.01	.01
424	7.00							27.49	.45	1	1.21							.31	.38
945	15.60	2	2	.03				14.78	.24	7	8.44							.17	.21
155	2.56	1	1	.02	1	1	.02	2.76	.05	1	1.21							.01	.01
16	.26	8	5	.08				2.41	.04										
,240	36.98	5	5	.08				40.26	.66	26	31.36							.74	.89
37	.61				7	7	.12	3.16	.05										
157	2.59	3	2	.03	20	19	.31	12.18	.20	2	2.41							.59	.71
188	3.10	8	2	.03				13.78	.23	6	7.24							1.08	1.30
2	.03				2	2	.03	.03	.00										
68	1.12	12	10	.17				4.69	.08	2	2.41							.07	.08
2	.03	1	1	.02				.04	.00										
5	.08							.12	.00										
3	.05							.26	.00										
332	5.48							6.88	.11	6	7.24							.46	.56
59	.97							1.72	.03	2	2.41							.05	.06
,903	64.43							56.13	.93	136	164.05							2.76	3.33
19	.31	3	2	.03	1	1	.02	2.20	.04									.05	.06
692	11.42	11	9	.15				17.25	.28	9	10.86							.34	.41
,329	38.44	4	3	.05	1	1	.02	30.76	.51	19	22.92							.50	.60
23	.38							1.13	.02										
77	1.27							1.26	.02										
586	9.67	3	3	.05	11	11	.18	44.25	.73	4	4.83							.85	1.02
308	5.08	34	27	.45	2	2	.03	34.84	.58	5	6.03	2	1	1.21				1.96	2.36
34	.56							2.86	.05	1	1.21							.19	.22
,579	26.06	18	10	.17				24.71	.41	33	39.81	1	1	1.21				.70	.85
8	.13	1	1	.02				.83	.01						1	1	1.21		
12	.20							1.46	.02									.12	.15
239	3.94	3	[illegible]	.03	3	3	.05	10.85	.18	3	3.62							.22	.26
3	.05				3	3	.05	.33	.01										
21	.35				4	4	.07	1.37	.02	2	2.41				1	1	1.21	.13	.16
36	.59	17	9	.15	8	7	.12	8.44	.14	1	1.21	1	1	1.21	2	1	1.21	.46	.55
43	.71	6	6	.10	2	1	.02	5.91	.10										
164	2.71	26	20	.33				7.10	.12	6	7.34	3	2	2.41				.34	.41
89	1.47							2.38	.04	1	1.21							.03	.03
8	.13							.36	.01										
271	4.47	2	1	.02				9.74	.16	5	6.03	1	1	1.21				.77	.93
920	15.19							16.37	.27	5	6.03							.12	.15
892	14.73							24.89	.41	8	9.65							.44	.54
132	2.18	9	6	.10				13.69	.23	4	4.83	2	2	2.41				1.48	1.79
252	4.16	34	20	.33				22.55	.37	11	13.27	4	1	1.21				1.97	2.38
185	3.05	3	2	.03				7.07	.12									.11	.13
1	.02							.06	.00	1	1.21							.01	.01
260	4.29							4.90	.08	6	7.24							.20	.24
53	.87	1	1	.02	4	4	.07	2.46	.04									.32	.38
27	.45							1.46	.02	1	1.21							.09	.11

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[2] Excluding those occurring in the United States proper from commands on duty in Alaska or insular ossessions.

TABLE 71.—*Admissions to sick report, discharges, deaths, and noneffectiveness, w*
continental, excludi

Serial Nos.	International classification.		United States, total enlisted men, white and colore								
		Mean strength	S. G. O., 61,410—A. G. O., 61,410.								
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]									
426–434	155–163	Suicides, all	5	0.08	....	....	....	36	35	0.57	....
435	164	Poisoning by food	44	.72	....	....	....	...	...	....	....
436	165a	Venomous bites and stings	45	.73	....	....	....	...	...	....	....
437	165b	Other poisoning (deleterious gases excepted)	34	.55	....	....	....	4	4	.07	....
438	166	Conflagration	.....	.....	....	....	....	...	...	....	....
439	167	Burns (conflagrationsexcepted)	228	3.71	....	....	....	...	...	....	....
440	168	Absorption of deleterious gases	.....	.....	....	....	....	1	1	.02	....
441	168a	Suffocation, strangulation	1	.02	....	....	....	1	1	.02	....
442	169	Drowning, accidental	.....	.....	....	....	....	21	21	.34	....
443	170	Traumatism by firearms (other than specified)	260	4.23	47	35	0.57	18	18	.29	....
444	170a	Shot by sentry or guard	3	.05	2	1	.02	3	3	.05	....
445	171	Traumatism by cutting or piercing instruments	831	13.53	10	9	.15	...	...	....	....
446	172	Traumatism by fall	2,054	33.44	44	23	.37	6	6	.10	....
447	173	Traumatism in mines and quarries	.....	.....	....	....	....	...	...	....	....
448	174	Traumatism by machines	33	.54	2	2	.03	...	...	....	....
449	175	Traumatism by other crushing	568	9.25	34	24	.39	17	17	.28	....
450	176	Injuries by animals	744	12.11	2	1	.02	3	3	.05	....
451	177	Starvation	.....	.....	....	....	....	...	...	....	....
452	178	Effects of excessive cold	14	.23	....	....	....	...	...	....	....
453	179	Effects of heat	107	1.74	....	....	....	2	2	.03	....
454	180	Effects of lightning	.....	.....	....	....	....	1	1	.02	....
455	181	Effects of electricity	1	.02	....	....	....	1	1	.02	....
456–458	182–4	Homicides, all	5	.08	....	....	....	16	16	.26	....
459	185	Fractures, causes not specified	2	.03	....	....	....	...	...	....	....
460	186	Other external violence	3,009	49.00	25	12	.20	6	6	.10	....
462–466	....	Killed or wounded in action	9	.15	4	1	.02	10	9	.15	....
462	....	By bullet	9	.15	4	1	.02	10	9	.15	....
		DISEASES AND INJURIES GROUPED.									
		General diseases	13,758	224.04	463	269	4.38	86	65	1.06	744.38
	1–19	Epidemic diseases	6,452	105.06	11	7	.11	22	22	.36	173.92
	20–59	Other general diseases	7,306	118.96	452	262	4.27	64	43	.70	570.46
		Diseases of the nervous system and organs of special sense	1,989	32.38	464	307	5.00	18	15	.24	160.23
	60–74	Of the nervous system	938	15.27	407	260	4.23	18	15	.24	114.22
	75	Of the eye and its annexa	630	10.26	32	25	.41	...	...	....	26.14
	76	Of the ear and its annexa	421	6.85	25	22	.36	...	...	....	19.87
	77–85	Diseases of the circulatory system	1,294	21.07	84	55	.90	22	22	.36	78.11
	86–98	Diseases of the respiratory system	3,872	63.05	40	28	.46	31	30	.49	97.23
	99–118	Diseases of the digestive system	10,426	169.77	82	60	.98	23	22	.36	246.87
	119–127	Diseases of the genito-urinary system	688	11.20	60	41	.67	17	14	.23	39.06
	142–145	Diseases of the skin and cellular tissue	3,240	52.76	11	6	.10	...	...	....	83.35
	146–149	Diseases of the organs of locomotion	1,768	28.79	209	129	2.10	...	...	....	101.39
	150	Malformations, etc	185	3.01	3	2	.03	...	...	....	7.18
	154	Diseases, results of old age	2	.03	....	....	....	...	...	....	.07
	189	Ill-defined diseases	395	6.43	1	1	.02	4	4	.07	10.22
		Total for disease	37,615	612.52	1,417	897	14.64	201	172	2.80	1,568.09
	155–186	External causes	8,159	132.86	208	132	2.15	147	143	2.33	315.62
		Total for disease and external causes	45,774	745.38	1,625	1,029	16.76	348	315	5.13	1,883.71

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[1] Including those occurring in the United States proper from commands on duty in Alaska or i
possessions.

tios per 1,000 of mean strength, for enlisted American troops serving in the United States, laska, for the year 1916—Continued.

United States, white, enlisted men.										United States, colored, enlisted men.									
S. G. O., 60,581—A. G. O., 60,581.										S. G. O., 829—A. G. O., 829.									
Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
5	0.08	....	....	....	35	34	0.56	....	....	....	....	....	....	....	1	1	1.21	....	....
43	.71	....	....	....	....	....	....	....	....	1	1.21	....	....	....	....	....	....	....	....
45	.74	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
33	.54	....	....	....	4	4	.07	....	....	1	1.21	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	2	2.41	....	....	....	....	....	....	....	....
....	....	....	....	....	1	1	.02	....	....	....	....	....	....	....	....	....	....	....	....
1	.02	....	....	....	1	1	.02	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	21	21	.35	....	....	....	....	....	....	....	....	....	....	....	....
257	4.24	43	33	0.54	18	18	.30	....	....	3	3.62	4	2	2.41	....	....	....	....	....
3	.05	2	1	.02	3	3	.05	....	....	....	....	....	....	....	....	....	....	....	....
814	13.44	9	9	.15	....	....	....	....	....	17	20.51	1	....	....	....	....	....	....	....
,020	33.34	38	22	.36	6	6	.10	....	....	34	41.01	6	1	1.21	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
33	.54	1	1	.02	....	....	....	....	....	....	....	1	1	1.21	....	....	....	....	....
560	9.24	34	24	.40	17	17	.28	....	....	8	9.65	....	....	....	....	....	....	....	....
738	12.18	2	1	.02	3	3	.05	....	....	6	7.24	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
12	.20	....	....	....	....	....	....	....	....	2	2.41	....	....	....	....	....	....	....	....
107	1.77	....	....	....	2	2	.03	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	1	1	.02	....	....	....	....	....	....	....	....	....	....	....	....
1	.02	....	....	....	1	1	.02	....	....	....	....	....	....	....	....	....	....	....	....
5	.08	....	....	....	14	14	.23	....	....	....	....	....	....	....	2	1	1.21	....	....
2	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
,970	49.03	22	12	.20	6	6	.10	....	....	39	47.04	3	....	....	....	....	....	....	....
9	.15	2	....	....	10	9	.15	....	....	....	....	2	1	1.21	....	....	....	....	....
9	.15	2	....	....	10	9	.15	....	....	....	....	2	1	1.21	....	....	....	....	....
,536	223.44	399	258	4.26	78	69	.99	703.23	11.61	222	267.79	64	11	13.27	8	5	6.03	41.15	49.63
,385	105.40	11	7	.12	22	22	.36	170.06	2.81	67	80.82	....	....	....	....	....	....	3.85	4.65
7,151	118.04	388	251	4.14	56	38	.63	533.17	8.80	155	186.97	64	11	13.27	8	5	6.03	37.29	44.98
,963	32.41	448	305	5.03	18	15	.25	152.82	2.53	26	31.36	16	3	3.62	....	....	....	7.42	8.95
926	15.29	392	258	4.26	18	15	.25	108.90	1.80	12	14.48	15	2	2.41	....	....	....	5.32	6.42
621	10.25	31	25	.41	....	....	....	24.77	.41	9	10.86	1	....	....	....	....	....	1.37	1.66
416	6.87	25	22	.36	....	....	....	19.15	.32	5	6.03	....	....	....	....	....	....	.72	.87
,274	21.03	80	54	.89	22	22	.36	74.24	1.23	20	24.13	4	1	1.21	....	....	....	3.87	4.66
,828	63.19	40	28	.46	31	30	.50	94.58	1.56	44	53.08	....	....	....	....	....	....	2.66	3.20
,208	168.50	79	58	.96	22	22	.36	238.66	3.94	218	262.97	3	2	2.41	1	....	....	8.20	9.89
672	11.03	55	39	.64	14	12	.20	37.32	.62	16	19.30	5	2	2.41	3	2	2.41	1.74	2.10
,218	53.12	11	6	.10	....	....	....	82.48	1.36	22	26.54	....	....	....	....	....	....	.86	1.04
,724	28.46	195	125	2.06	....	....	....	95.60	1.58	44	53.08	14	4	4.83	....	....	....	5.79	6.99
185	3.05	3	2	.03	....	....	....	7.07	.12	....	....	....	....	....	....	....	....	.11	.13
1	.02	....	....	....	....	....	....	.06	.00	1	1.21	....	....	....	....	....	....	.01	.01
387	6.30	1	1	.02	4	4	.07	9.62	.16	8	9.65	....	....	....	....	....	....	.61	.74
,995	610.67	1,311	875	14.44	189	165	2.72	1,495.68	24.69	620	747.80	106	22	26.54	12	7	8.44	72.40	87.34
,041	132.73	191	128	2.11	143	141	2.33	304.70	5.03	118	142.31	17	4	4.83	4	2	2.41	10.92	13.18
,036	743.40	1,502	1,003	16.56	332	306	5.05	1,800.38	29.72	738	890.23	123	26	31.36	16	9	10.86	83.33	100.52

Excluding those occurring in the United States proper from commands on duty in Alaska or insular ssessions.

Noneffectiveness for individual external causes not tabulated.

TABLE No. 71½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
grand tot

Serial Nos.	International classification.	Causes of admission to sick report.	Philippine Islands, officers.									
		Mean strength	S. G. O., 664—A. G. O., 738.									
			Admissions.		Discharges.			Deaths.			Non-effectiv	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio
7-11	4	Malaria	17	25.60							0.30	0.
7		Æstivo-autumnal fever	5	7.53							.10	.
8		Malarial cachexia										
9		Quartan malarial fever										
10		Tertian malarial fever	11	16.57							.18	.
11		Undetermined malarial fever	1	1.51							.01	.
12	5	Smallpox and varioloid										
13	5b	Vaccinia										
14	6	Measles										
17	9	Diphtheria										
18	10	Influenza	14	21.08							.14	.
19	12	Asiatic cholera										
21-23	14	Dysentery	14	21.08							1.35	2.
21		Bacillary										
22		Entamœbic	14	21.08							1.35	2
23		Unclassified										
27	18	Erysipelas										
29	19b	Dengue	15	22.59							.22	
31	19d	German measles										
34	19g	Mumps	2	3.01							.06	
37	20	Purulent infection and septicæmia										
41	24	Tetanus										
48	27	Beriberi										
49-57	28-34	Tuberculosis, all	4	6.02							.16	
49-51	28	Tuberculosis of lungs	4	6.02							.16	
52	29	Miliary tuberculosis, acute										
53-57	30-34	Tuberculosis of other organs										
59-74	37-38	Venereal diseases, all	4	6.02							.09	
59-64	37	Syphilis	4	6.02							.09	
65-67	38a	Soft chancre										
68-74	38b	Gonococcus infection										
75-79	39-45	Cancer and other malignant tumors										
80	46	Benign tumors										
81-85	47-48	Rheumatism, articular, all	3	4.52							.05	
81-82	47	Acute articular rheumatism	1	1.51							.01	
83-85	48	Chronic articular rheumatism	2	3.01							.05	
87-88	50	Diabetes										
89	51	Exophthalmic goiter										
97-100	56	Alcoholism and results	3	4.52							.02	
101-102	57-58	Chronic occupational poisoning										
103-104	59	Other chronic poisoning, including drug habit										
108	61a	Epidemic cerebrospinal meningitis										
109	62	Locomotor ataxia										
110-115	63	Other diseases of spinal cord										
116	64	Cerebral hemorrhage, apoplexy										
117-119	66	Paralysis without specified cause										
120-126	67-68	Mental alienation	1	1.51							.13	
127	69	Epilepsy										
129-133	73	Neuralgia and neuritis	5	7.53							.07	
138-141	75a	Follicular conjunctivitis	2	3.01							.01	
142	75b	Trachoma										
166	77	Pericarditis										
167	78	Acute endocarditis										
169-174	79	Organic heart disease	1	1.51							.04	
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc									.03	
178-179	82	Embolism and thrombosis										
181	83b	Hemorrhoids	5	7.53							.17	
183	83d	Varicose veins										

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[1] Number of discharges and deaths which actually occurred.

tios per 1,000 of mean strength, for the Philippine Islands, officers, total enlisted, and
ar 1916.

Philippine Islands, total enlisted (including Philippine Scouts).										Philippine Islands, total officers and enlisted men (including scouts).									
S. G. O., 17,159—A. G. O., 17,159.										S. G. O., 17,823—A. G. O., 17,997.									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
971	56.59	...	...	...	...	...	...	25.50	1.49	988	55.43	...	...	...	...	...	...	25.80	1.45
275	16.03	...	...	...	...	...	...	8.67	.51	280	15.71	...	...	...	...	...	...	8.77	.49
4	.23	...	...	...	...	...	...	.54	.03	4	.22	...	...	...	...	...	...	.54	.03
7	.41	...	...	...	...	...	...	.17	.01	7	.39	...	...	...	...	...	...	.17	.01
658	38.35	...	...	...	...	...	...	15.58	.91	669	37.53	...	...	...	...	...	...	15.76	.88
27	1.57	...	...	...	...	...	...	.55	.03	28	1.57	...	...	...	...	...	...	.56	.03
9	.52	...	...	...	1	1	0.06	.65	.04	9	.50	...	...	...	1	1	0.06	.65	.04
18	1.05	...	...	...	...	...	...	.27	.02	18	1.01	...	...	...	...	...	...	.27	.01
18	1.05	...	...	...	...	...	...	1.22	.07	18	1.01	...	...	...	...	...	...	1.22	.07
3	.17	...	...	...	...	...	...	.84	.05	3	.17	...	...	...	...	...	...	.84	.05
142	8.28	...	...	...	...	...	...	2.64	.15	156	8.75	...	...	...	...	...	...	2.79	.16
7	.41	...	...	...	1	1	.06	.60	.03	7	.39	...	...	...	1	1	.06	.60	.03
166	9.67	...	...	...	1	1	.06	10.44	.61	180	10.10	...	...	...	1	1	.06	11.78	.66
19	1.11	...	...	...	...	...	...	.98	.06	19	1.07	...	...	...	...	...	...	.98	.06
133	7.75	...	...	...	1	1	.06	9.07	.53	147	8.25	...	...	...	1	1	.06	10.42	.58
14	.82	...	...	...	...	...	...	.39	.02	14	.79	...	...	...	...	...	...	.39	.02
2	.12	2	2	0.12	...	...	...	.14	.01	2	.11	2	2	0.11	...	...	...	.14	.01
4	.23	...	...	...	...	...	...	.10	.01	4	.22	...	...	...	...	...	...	.10	.01
204	11.89	...	...	...	...	...	...	3.71	.22	219	12.29	...	...	...	...	...	...	3.93	.22
2	.12	...	...	...	...	...	...	.07	.00	2	.11	...	...	...	...	...	...	.07	.00
62	3.61	...	...	...	...	...	...	2.97	.17	64	3.59	...	...	...	...	...	...	3.03	.17
4	.23	...	...	...	1	1	.06	.62	.04	4	.22	...	...	...	1	1	.06	.62	.03
1	.06	...	...	...	...	...	...	.16	.01	1	.06	...	...	...	...	...	...	.16	.01
2	.12	...	...	...	...	...	...	.40	.02	2	.11	...	...	...	...	...	...	.40	.02
68	3.96	16	42	2.45	2	12	.70	6.28	.37	72	4.04	16	42	2.45	2	12	.66	6.44	.36
65	3.79	16	41	2.39	2	11	.64	5.85	.34	69	3.87	16	41	2.39	2	11	.61	6.00	.34
1	.06	...	...	...	...	1	.06	.10	.01	1	.06	...	1	.06	...	1	.06	.10	.01
2	.12	...	1	.06	...	...	...	.34	.02	2	.11	...	1	.06	...	...	...	.34	.02
,058	119.94	3	17	.99	1	1	.06	99.98	5.83	2,062	115.69	3	17	.99	1	1	.06	100.07	5.61
442	25.76	1	8	.47	1	1	.06	27.33	1.59	446	25.02	1	8	.47	1	1	.06	26.43	1.54
422	24.59	...	...	...	...	...	...	14.54	.85	422	23.67	...	...	...	...	...	...	14.54	.82
,194	69.58	2	9	.52	...	...	...	58.11	3.39	1,194	66.99	2	9	.52	...	...	...	58.11	3.26
10	.58	...	...	...	3	6	.35	1.63	.09	10	.56	...	...	...	3	6	.33	1.63	.09
28	1.63	...	...	...	...	...	...	1.78	.10	28	1.57	...	...	...	...	...	...	1.78	.10
64	3.73	...	2	.12	...	...	...	3.17	.18	67	3.76	...	2	.12	...	...	...	3.23	.18
47	2.74	...	...	...	...	...	...	2.12	.12	48	2.69	...	...	...	...	...	...	2.12	.12
17	.99	...	2	.12	...	...	...	1.06	.06	19	1.07	...	2	.12	...	...	...	1.11	.06
2	.12	...	...	...	1	1	.06	.04	.00	2	.11	...	...	...	1	1	.06	.04	.00
2	.12	...	3	.17	...	...	...	.37	.02	2	.11	...	3	.17	...	...	...	.37	.02
188	10.96	...	1	.06	...	...	...	2.90	.17	191	10.72	...	1	.06	...	...	...	2.92	.16
1	.06	...	...	...	...	...	...	.02	.00	1	.06	...	...	...	...	...	...	.02	.00
3	.17	...	...	...	...	...	...	.05	.00	3	.17	...	...	...	...	...	...	.05	.00
3	.17	...	...	...	2	2	.12	.17	.01	3	.17	...	...	...	2	2	.11	.17	.01
2	.12	...	...	...	...	...	...	.02	.00	2	.11	...	...	...	...	...	...	.02	.00
2	.12	...	...	...	...	...	...	.61	.04	2	.11	...	...	...	...	...	...	.61	.03
1	.06	...	...	...	1	1	.06	.01	.00	1	.06	...	...	...	1	1	.06	.01	.00
2	.12	...	...	...	...	...	...	.17	.01	2	.11	...	...	...	...	...	...	.17	.01
55	3.21	4	42	2.45	...	1	.06	5.83	.34	56	3.14	4	42	2.45	...	1	.06	5.96	.33
10	.58	...	...	...	...	...	...	.55	.03	10	.56	...	4	.23	...	...	...	.55	.03
76	4.43	...	2	.12	...	...	...	3.16	.18	81	4.54	...	2	.12	...	...	...	3.23	.18
123	7.17	...	...	...	...	...	...	2.12	.12	125	7.01	...	...	...	...	...	...	2.13	.12
5	.29	...	...	...	...	...	...	.21	.01	5	.28	...	...	...	...	...	...	.21	.01
1	.06	...	...	...	...	...	...	.11	.01	1	.06	...	...	...	...	...	...	.11	.01
3	.17	...	...	...	...	...	...	.26	.02	3	.17	1	...	.06	...	...	...	.26	.01
26	1.52	1	6	.35	2	2	.12	2.34	.14	27	1.51	1	6	.35	2	2	.11	2.38	.13
3	.17	...	...	...	...	...	...	.15	.01	3	.17	...	...	...	...	...	...	.18	.01
1	.06	...	...	...	...	...	...	.06	.00	1	.06	...	...	...	...	...	...	.06	.00
97	5.65	...	...	...	...	...	...	2.83	.17	102	5.72	...	...	...	...	...	...	3.00	.17
15	.87	...	1	.06	...	...	...	1.30	.08	15	.84	...	1	.06	...	...	...	1.30	.07

Number of discharges and deaths, including those of cases invalided home and deducted from the
ited States.

TABLE No. 71½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit grand total. yea*

			Philippine Islands, officers.									
		Mean strength	S. G. O., 664—A. G. O., 738.									
Serial Nos.	International classification.	Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Non-effective.	
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
					(1)	(2)		(1)	(2)			
184	83e	Varicocele	1	1.51	....	....	....	....	....	....	0.05	0.0
185–187	84	Diseases of the lymphatic system.	....	....	....	....	....	....	....	....	....	....
193–199	86	Diseases of the nasal fossae	8	12.05	....	....	....	....	....	....	.06	.0
200–202	87	Diseases of the larynx	....	....	....	....	....	....	....	....	....	....
203–204	88	Diseases of the thyroid body	....	....	....	....	....	....	....	....	....	....
205–206	89–90	Bronchitis	22	33.13	....	....	....	....	....	....	.24	.3
207	91	Broncho-pneumonia	....	....	....	....	....	....	....	....	....	....
208	92	Pneumonia	....	....	....	....	....	....	....	....	....	....
209–215	93	Pleurisy	1	1.51	....	....	....	....	....	....	.07	.1
216–217	94	Pulmonary congestion and pulmonary apoplexy	....	....	....	....	....	....	....	....	....	....
219	96	Asthma	1	1.51	....	....	....	....	....	....	.25	.3
220	97	Pulmonary emphysema	....	....	....	....	....	....	....	....	....	....
221	98a	Haemoptysis	....	....	....	....	....	....	....	....	....	....
222	98b	Hay fever	1	1.51	....	....	....	....	....	....	.00	.0
224–227	99a	Diseases of the teeth and gums	8	12.05	....	....	....	....	....	....	.06	.0
228–231	99b	Other diseases of the mouth and annexa	3	4.52	....	....	....	....	....	....	.10	.1
232–236	100	Diseases of the pharynx	15	22.59	....	....	....	....	....	....	.23	.3
238	102	Ulcer of stomach	....	....	....	....	....	....	....	....	....	....
239–244	103	Other diseases of stomach (cancer excepted)	8	12.05	....	....	....	....	....	....	.21	.3
245–253	105	Diarrhea and enteritis	39	58.73	....	....	....	....	....	....	1.08	1.6
254	106	Ankylostomiasis	....	....	....	....	....	....	....	....	....	....
255–259	107	Intestinal parasites	1	1.51	....	....	....	....	....	....	.01	.0
260	108	Appendicitis	4	6.02	....	....	....	....	....	....	.21	.3
261–263	109	Hernia	1	1.51	....	....	....	....	....	....	.09	.1
264–267	110a	Diseases of the anus and fæcal fistula	....	....	....	....	....	....	....	....	....	....
268–272	110b	Other diseases of the intestines	24	36.14	....	....	....	....	....	....	.26	.4
276	114	Biliary calculi	1	1.51	....	....	....	....	....	....	.01	.0
277–281	115	Other diseases of liver and gall bladder	2	3.01	....	....	....	....	....	....	.20	.3
238–284	117	Simple peritonitis	....	....	....	....	....	....	....	....	....	....
288	119	Acute nephritis	....	....	....	....	....	....	....	....	....	....
289–291	120	Bright's disease	1	1.51	....	....	....	....	....	....	.01	.0
293–299	122	Other diseases of the kidney and annexa	1	1.51	....	....	....	....	....	....	.07	.1
303–306	124	Diseases of the bladder	2	3.01	....	....	....	....	....	....	.01	.0
304	124b	Enuresis	....	....	....	....	....	....	....	....	....	....
307–309	125	Diseases of the urethra, urinary abscess, etc	2	3.01	....	....	....	....	....	....	.05	.0
310–312	126	Diseases of the prostate	2	3.01	....	....	....	....	....	....	.10	.1
313–319	127	Diseases of the male genital organs (nonvenereal)	2	3.01	....	....	....	....	....	....	.04	.0
322–323	143	Furuncle and carbuncle	2	3.01	....	....	....	....	....	....	.03	.0
324–325	144	Acute abscess and cellulitis	10	15.06	....	....	....	....	....	....	.31	.4
352–357	146	Diseases of the bones	5	7.53	....	....	....	....	....	....	.30	.4
358–360	147	Diseases of the joints	2	3.01	....	....	....	....	....	....	.16	.2
367	147g	Flat foot	....	....	....	....	....	....	....	....	....	....
372	150	Congenital malformations	....	....	....	....	....	....	....	....	....	....
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	3	4.62	....	....	....	....	....	....	.03	.0
379	189Ba	Under observation, undiagnosed, and unknown	....	....	....	....	....	....	....	....	....	....
380	189Bb	Malingering	....	....	....	....	....	....	....	....	....	....

[1] Number of discharges and deaths which actually occurred.

tios per 1,000 of mean strength, for the Philippine Islands, officers, total enlisted, and 16—Continued.

Philippine Islands, total enlisted (including Philippine Scouts.)										Philippine Islands, total officers and enlisted men (including scouts).									
S. G. O., 17,159—A. G. O., 17,159.										S. G. O., 17,823—A. G. O., 17,997.									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
40	2.33	...	...	...	...	...	...	1.93	0.11	41	2.30	...	...	...	...	...	...	1.99	0.11
120	6.99	...	...	...	...	...	...	5.25	.31	120	6.73	...	...	...	...	...	...	5.25	.29
228	13.29	...	...	...	...	...	...	3.02	.18	236	13.24	...	...	...	...	...	...	3.08	.17
12	.70	...	...	...	...	...	...	.21	.01	12	.67	...	...	...	...	...	...	.21	.01
6	.35	...	...	...	...	...	...	.40	.02	6	.34	...	...	...	...	...	...	.40	.02
601	35.03	...	...	...	...	...	...	12.80	.75	623	34.95	...	...	...	...	...	...	13.03	.73
5	.29	...	...	...	1	1	0.06	.30	.02	5	.28	...	...	...	1	1	0.06	.30	.02
22	1.28	...	...	...	1	2	.12	1.54	.09	22	1.23	...	...	...	1	2	.11	1.54	09
59	3.44	...	1	0.06	...	...	...	3.81	.22	60	3.37	...	1	0.06	...	...	...	3.89	.22
8	.47	...	...	...	2	2	.12	.18	.01	8	.45	...	...	...	2	2	.11	.18	.01
20	1.17	...	1	.06	...	...	...	1.23	.07	21	1.18	...	1	0.06	...	...	...	1.48	.08
...	...	...	...	...	...	...	...	.20	.01	...	...	...	...	...	...	...	...	.20	.01
3	.17	...	...	...	...	...	...	.17	.01	3	.17	...	...	...	...	...	...	.17	.01
...	...	...	...	...	...	...	...	...	...	1	.06	...	...	...	...	...	...	.00	.00
62	3.61	...	...	...	...	...	...	1.19	.07	70	3.93	...	...	...	...	...	...	1.25	.07
22	1.28	...	...	...	...	...	...	.41	.02	25	1.40	...	...	...	...	...	...	.51	.03
629	36.66	...	...	...	...	...	...	9.80	.57	644	36.16	...	...	...	...	...	...	10.02	.56
2	.12	...	...	...	...	...	...	.11	.01	2	.11	...	...	...	...	...	...	.11	.01
221	12.88	...	1	.06	...	...	...	3.59	.21	229	12.85	...	1	.06	...	...	...	3.80	.21
776	45.22	...	...	...	1	1	.06	9.15	.53	815	45.73	...	...	...	1	1	.06	10.24	.57
28	1.63	...	...	...	...	...	...	.96	.06	28	1.57	...	...	...	...	...	...	.96	.05
34	1.98	...	...	...	...	...	...	.60	.03	35	1.96	...	...	...	...	...	...	.61	.03
162	9.44	...	...	...	2	2	.12	9.94	.58	166	9.31	...	...	...	2	2	.11	10.15	.57
55	3.21	1	2	.12	1	1	.06	4.80	.28	56	3.14	1	2	.12	1	1	.06	4.89	.27
18	1.05	...	...	...	...	...	...	.50	.03	18	1.01	...	...	...	...	...	...	.50	.03
723	42.14	1	5	.29	...	1	.06	9.14	.53	747	4.91	1	5	.29	...	1	.06	9.41	.53
3	.17	...	...	...	...	...	...	.29	.02	4	.22	...	...	...	...	...	...	.30	.02
83	4.84	1	2	.12	1	1	.06	3.31	.19	85	4.77	1	2	.12	1	1	.06	3.51	.20
2	.12	...	...	...	...	...	...	.07	.01	2	.11	...	...	...	...	...	...	.07	.00
26	1.52	...	...	...	1	1	.06	1.12	.07	26	1.46	...	...	...	1	1	.06	1.12	.06
16	.93	...	2	.12	...	1	.06	1.44	.08	17	.95	...	2	.12	...	1	.06	1.45	.08
10	.58	...	...	...	...	1	.06	.88	.05	11	.62	...	...	...	...	1	.06	.95	.05
21	1.22	...	1	.06	...	...	...	.90	.05	23	1.29	...	1	.06	...	...	...	.91	.05
8	.47	...	1	.06	...	...	...	.35	.02	8	.45	...	1	.06	...	...	...	.35	.02
26	1.52	...	...	...	...	...	...	.37	.02	28	1.57	...	...	...	...	...	...	.42	.02
1	.06	...	...	...	...	...	...	.01	.00	3	.17	...	...	...	...	...	...	.11	.01
66	3.85	...	...	...	...	...	...	2.10	.12	68	3.82	...	...	...	...	...	...	2.14	.12
227	13.23	...	...	...	...	...	...	4.13	.24	229	12.85	...	...	...	...	...	...	4.16	.23
331	19.29	1	1	.06	...	...	...	9.63	.56	341	19.13	1	1	.06	...	...	...	9.95	.56
36	2.10	...	...	...	...	...	...	1.75	.10	41	2.30	...	...	...	...	...	...	2.05	.11
44	2.56	1	7	.41	...	...	...	3.46	.20	46	2.58	1	7	.41	...	...	...	3.62	.20
67	3.90	1	22	1.28	...	...	...	3.32	.19	67	3.76	1	22	3.76	...	...	...	3.32	.19
82	4.78	...	1	.06	...	...	...	2.59	.15	82	4.60	...	1	.06	...	...	...	2.59	.15
90	5.25	...	...	...	...	...	...	2.20	.13	93	5.22	...	...	...	...	...	...	2.23	.13
15	.87	...	...	...	...	...	...	1.02	.06	15	.84	...	...	...	...	...	...	1.02	.06
3	.17	...	...	...	...	...	...	.20	.01	3	.17	...	...	...	...	...	...	.20	.01

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the nited States.

TABLE NO. 71½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
grand total, yea

Serial Nos.	International classification.	Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Philippine Islands, officers.									
		Mean strength	S. G. O., 664—A. G. O., 738.									
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426–434	155–163	Suicides, all	....	.....	....	....	.....	....	....	.....	......	...
435	164	Poisoning by food	3	4.52	....	....	.....	....	....	.....	......	...
436	165a	Venomous bites and stings	....	.....	....	....	.....	....	....	.....	......	...
437	165b	Other poisoning (deleterious gases excepted)	....	.....	....	....	.....	....	....	.....	......	...
439	167	Burns (conflagrations excepted)	1	1.51	....	....	.....	....	....	.....	......	...
442	169	Drowning, accidental	....	.....	....	....	.....	....	....	.....	......	...
443	170	Traumatism by firearms (other than specified)	....	.....	....	....	.....	....	....	.....	......	...
445	171	Traumatism by cutting or piercing instruments	2	3.01	....	....	.....	....	....	.....	......	...
446	172	Traumatism by fall	17	25.60	....	....	.....	....	....	.....	......	...
447	173	Traumatism in mines and quarries	....	.....	....	....	.....	....	....	.....	......	...
448	174	Traumatism by machines	....	.....	....	....	.....	....	....	.....	......	...
449	175	Traumatism by other crushing	1	1.51	....	....	.....	....	....	.....	......	...
450	176	Injuries by animals	5	7.53	....	....	.....	....	....	.....	......	...
451	177	Starvation	....	.....	....	....	.....	....	....	.....	......	...
453	179	Effects of heat	2	3.01	....	....	.....	....	....	.....	......	...
455	181	Effects of electricity	....	.....	....	....	.....	....	....	.....	......	...
456–458	182–4	Homicides, all	....	.....	....	....	.....	....	....	.....	......	...
460	186	Other external violence	20	30.12	....	....	.....	....	....	.....	......	...
		DISEASES AND INJURIES GROUPED.										
		General diseases	76	114.46	....	....	.....	....	....	.....	2.39	3.
	1–19	Epidemic diseases	62	93.37	....	....	.....	....	....	.....	2.07	3.
	20–59	Other general diseases	14	21.08	....	....	.....	....	....	.....	.33	.
		Diseases of the nervous system and organs of special sense	31	46.69	....	....	.....	....	....	.....	1.49	2.
	60.74	Of the nervous system	20	30.12	....	....	.....	....	....	.....	.70	1.
	75	Of the eye and its annexa	6	9.04	....	....	.....	....	....	.....	.59	.
	76	Of the ear and its annexa	5	7.53	....	....	.....	....	....	.....	.21	.
	77–85	Diseases of the circulatory system	8	12.05	....	....	.....	....	....	.....	.30	.
	86–98	Diseases of the respiratory system	33	49.70	....	....	.....	....	....	.....	.62	.
	99–118	Diseases of the digestive system	107	161.14	....	....	.....	....	....	.....	2.49	3.
	119–127	Diseases of the genito-urinary system	10	15.06	....	....	.....	....	....	.....	.29	.
	142–145	Diseases of the skin and cellular tissue	21	31.63	....	....	.....	....	....	.....	.54	.
	146–149	Diseases of the organs of locomotion	14	21.08	....	....	.....	....	....	.....	.57	.
	150	Malformations, etc	....	.....	....	....	.....	....	....	.....	......	...
	189	Ill-defined diseases	6	9.04	....	....	.....	....	....	.....	.07	.
		Total for disease	306	460.84	....	....	.....	....	....	.....	8.77	13.
	155–186	External causes	52	78.31	....	....	.....	....	....	.....	1.75	2.
		Total for disease and external causes	358	539.16	....	....	.....	....	....	.....	10.52	15.

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from t
United States.

tios per 1,000 of mean strength, for the Philippine Islands, officers, total enlisted, and 916—Continued.

Philippine Islands, total enlisted (including Philippine Scouts).										Philippine Islands, total officers and enlisted men (including scouts).									
S. G. O., 17,159—A. G. O., 17,159.										S. G. O., 17,823—A. G. O., 17,997.									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
...	...	...	...	...	7	7	0.41	...	...	1	0.06	...	...	...	7	7	0.40	...	...
106	6.18	...	...	...	...	...	...	...	...	109	6.12	...	...	...	...	...	...	...	...
22	1.28	...	...	...	...	...	...	...	...	22	1.23	...	...	...	...	...	...	...	...
3	.17	...	...	...	...	...	...	...	...	3	.17	...	...	...	...	...	...	...	...
46	2.68	...	...	...	...	...	...	...	...	47	2.64	...	...	...	...	...	...	...	...
...	...	...	...	...	4	4	.23	...	...	...	...	...	...	...	4	4	.22	...	...
31	1.81	...	...	...	1	1	.06	...	...	31	1.74	...	...	...	1	1	.06	...	...
193	11.25	...	...	...	...	...	...	...	...	195	10.94	...	...	...	...	...	...	...	...
381	22.20	3	9	0.52	1	1	.06	...	...	398	22.33	3	9	0.52	1	1	.06	...	...
1	.06	...	...	...	1	1	.06	...	...	1	.06	...	...	...	1	1	.06	...	...
16	.93	...	...	...	...	...	...	...	...	16	.90	...	...	...	...	...	.06	...	...
142	8.28	...	2	.12	6	6	.35	...	...	143	8.02	...	2	.12	6	6	.33	...	...
117	6.82	...	...	...	...	...	...	...	...	122	6.85	...	...	...	...	...	...	...	...
1	.06	...	...	...	...	...	...	...	...	1	.06	...	...	...	...	...	...	...	...
38	2.21	...	...	...	...	...	...	...	...	40	2.24	...	...	...	...	...	...	...	...
1	.06	...	...	...	...	...	...	...	...	1	.06	...	...	...	...	...	...	...	...
2	.12	...	...	...	2	2	.12	...	...	2	.11	...	...	...	2	2	.12	...	...
730	42.54	...	4	.23	...	...	...	...	...	750	42.08	...	4	.23	...	...	...	...	...
,082	237.89	23	69	4.02	11	24	1.40	169.84	9.90	4.158	233.29	23	69	4.02	11	24	1.33	172.24	9.66
.646	95.93	4	4	.23	3	3	.17	51.41	3.00	1.708	95.83	4	4	.23	3	3	.17	53.48	3.00
,436	141.97	19	65	3.79	8	21	1.22	118.44	6.90	2,450	137.47	19	65	3.79	8	21	1.16	118.76	6.66
603	35.14	8	58	3.38	3	4	.23	24.12	1.31	634	35.57	8	58	3.38	3	4	.22	25.61	1.43
226	13.17	4	53	3.09	3	4	.23	15.21	.89	246	13.80	4	53	3.09	3	4	.22	15.91	.89
250	14.57	2	3	.17	...	...	...	5.67	.33	256	14.36	2	3	.17	...	...	...	6.27	.35
127	7.40	2	2	.12	...	...	...	3.23	.19	132	7.41	2	2	.12	...	...	...	3.44	.19
325	18.94	1	7	.41	3	3	.17	14.80	.86	333	18.68	1	7	.41	3	3	.17	15.09	.85
970	56.53	...	2	.12	4	5	.29	23.97	1.40	1.003	56.28	...	2	.12	4	5	.28	24.59	1.38
,821	164.40	2	10	.58	6	6	.35	53.87	3.14	2,928	164.28	2	10	.58	6	6	.33	56.36	3.16
171	9.97	...	3	.17	1	3	.17	7.35	.43	181	10.16	...	3	.17	1	3	.17	7.63	.43
,051	61.25	1	4	.23	...	...	...	30.91	1.80	1,072	60.15	1	4	.23	...	...	...	31.45	1.76
321	18.71	2	34	1.98	...	...	...	14.13	.82	335	18.80	2	34	1.98	...	...	...	14.71	.83
82	4.78	...	1	.06	...	...	...	2.59	.15	82	4.60	...	1	.06	...	...	...	2.59	.15
118	6.88	...	...	...	...	...	...	3.54	.21	124	6.96	...	...	...	...	...	...	3.61	.20
.544	614.49	37	188	10.96	28	45	2.62	345.11	20.11	10.850	608.76	37	188	10.96	28	45	2.49	353.87	19.86
.857	108.22	3	18	1.05	22	22	1.28	59.11	3.44	1,909	107.11	3	18	1.05	22	22	1.22	60.86	3.41
,401	722.71	40	206	12.01	50	67	3.90	404.22	23.56	12,759	715.87	40	206	12.01	50	67	3.71	414.73	23.27

[8] Noneffectiveness for individual external causes not tabulated.

TABLE No. 72.—*Admissions to sick report, deaths, discharges, and noneffectiveness, wit*
men, white an

Serial Nos.	International classification.		Philippine Islands, total American, enlisted men, white and colored.									
		Mean strength	S. G. O., 11,580—A. G. O., 11,580.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
7-11	4	Malaria	729	62.95							19.16	1.
7		Estivo-autumnal fever	201	17.36							6.20	.
8		Malarial cachexia	2	.17							.45	.
9		Quartan malarial fever	4	.35							.10	.
10		Tertian malarial fever	504	43.52							12.05	1.
11		Undetermined malarial fever	18	1.55							.36	.
12	5	Smallpox and varioloid										
13	5b	Vaccinia	10	.86							.14	.
14	6	Measles	13	1.12							.87	.
17	9	Diphtheria	3	.26							.84	.
18	10	Influenza	121	10.45							2.42	.
19	12	Asiatic cholera	5	.43							.47	.
21-23	14	Dysentery	139	12.00				1	1	0.09	9.19	.
21		Bacillary	6	.52							.20	.
22		Entamebic	123	10.62				1	1	.09	8.66	.
23		Unclassified	10	.86							.33	.
27	18	Erysipelas	3	.26							.09	.
29	19b	Dengue	142	12.26							2.26	.
31	19d	German measles	2	.17							.07	.
34	19g	Mumps	33	2.85							1.76	.
37	20	Purulent infection and septicemia	2	.17				1	1	.09	.28	.
49-57	28-34	Tuberculosis (all)	51	4.40		26	2.25	1	11	.95	4.30	.
49-51	28	Tuberculosis of lungs	48	4.15		25	2.16	1	10	.86	3.86	.
52	29	Miliary tuberculosis, acute	1	.09					1	.09	.10	.
53-57	30-34	Tuberculosis of other organs	2	.17		1	.09				.34	.
59-74	37-38	Venereal diseases (all)	1,891	163.30		14	1.21	1	4	.09	90.00	7.
59-64	37	Syphilis	415	35.84		7	.60	1	1	.09	25.38	2.
65-67	38a	Soft chancre	409	35.32							14.11	1.
68-74	38b	Gonococcus infection	1,067	92.14		7	.60				50.50	4.
75-79	39-45	Cancer and other malignant tumors	6	.52		3	.26				1.04	.
80	46	Benign tumors	18	1.55							.87	.
81-85	47-48	Rheumatism, articular (all)	45	3.89		2	.17				2.29	.
81-82	47	Acute articular rheumatism	28	2.42							1.23	.
83-85	48	Chronic articular rheumatism	17	1.47		2	.17				1.06	.
87-88	50	Diabetes	2	.17				1	1	.09	.04	.
89	51	Exophthalmic goiter	2	.17		3	.26				.37	
97-100	56	Alcoholism and results	182	15.72		1	.09				2.88	.
101-102	57-58	Chronic occupational poisoning	1	.09							.02	.
103-104	59	Other chronic poisoning including drug habit	3	.26							.05	.
109	62	Locomotor ataxia	2	.17							.02	.
110-115	63	Other diseases of spinal cord	1	.09							.18	
116	64	Cerebral hemorrhage, apoplexy	1	.09				1	1	.09	.01	
117-119	66	Paralysis without specified cause	2	.17							.17	
120-126	67-68	Mental alienation	50	4.32		38	3.28		1	.09	5.16	
127	69	Epilepsy	9	.78		4	.35				.54	
129-133	73	Neuralgia and neuritis	64	5.53		2	.17				3.02	
138-141	75a	Follicular conjunctivitis	50	4.32							.83	
142	75b	Trachoma	1	.09							.09	
166	77	Pericarditis	1	.09							.11	
167	78	Acute endocarditis	3	.26				1	1	.09	.26	
169-174	79	Organic heart disease	24	2.07		5	.43	1	1	.09	2.16	
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	2	.17							.10	
178-179	82	Embolism and thrombosis	1	.09							.06	
181	83b	Hemorrhoids	90	7.77							2.63	
183	83d	Varicose veins	13	1.12		1	.09				1.21	
184	83e	Variocele	39	3.37							1.91	
185-187	84	Diseases of the lymphatic system	103	8.89							4.31	
193-199	86	Diseases of the nasal fossæ	178	15.37							2.48	
200-202	87	Diseases of the larynx	10	.86							.16	

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[1] **Number of discharges and deaths which actually occurred.**

tios per 1,000 of mean strength, for Philippine Islands, American troops, enlisted lored, year 1916.

Philippine Islands, white American, enlisted men.										Philippine Islands, colored American, enlisted men.									
S. G. O., 10,635—A. G. O., 10,635.										S. G. O., 945—A. G. O., 945.									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
646	60.74	...	...	...	...	...	...	17.05	1.60	83	87.83	...	...	...	...	...	...	2.10	2.23
167	15.70	...	...	...	...	...	...	5.35	.50	34	35.98	...	...	...	...	...	...	.85	.90
2	.19	...	...	...	...	...	...	.45	.04	...	...	...	...	...	...	...	...	...	...
4	.38	...	...	...	...	...	...	.10	.01	...	...	...	...	...	...	...	...	...	...
456	42.88	...	...	...	...	...	...	10.80	1.01	48	50.79	...	...	...	...	...	...	1.25	1.32
17	1.60	...	...	...	...	...	...	.35	.03	1	1.06	...	...	...	...	...	...	.01	.01
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	.94	...	...	...	...	...	...	.14	.01	...	...	...	...	...	...	...	...	...	...
13	1.22	...	...	...	...	...	...	.87	.08	...	...	...	...	...	...	...	...	...	...
1	.09	...	...	...	...	...	...	.15	.01	2	2.12	...	...	...	...	...	...	.69	.73
121	11.38	...	...	...	...	...	...	2.34	.22	...	...	...	...	...	...	...	...	...	...
5	.47	...	...	...	...	...	...	.47	.04	...	...	...	...	...	...	...	...	...	...
127	11.94	...	...	...	...	...	...	7.87	.74	12	12.70	...	...	...	1	1	1.06	1.32	1.39
6	.56	...	...	...	...	...	...	.20	.02	...	...	...	...	...	...	...	...	...	...
111	10.44	...	...	...	...	...	...	7.34	.69	12	12.70	...	...	...	1	1	1.06	1.32	1.39
10	.94	...	...	...	...	...	...	.33	.03	...	...	...	...	...	...	...	...	...	...
3	.28	...	...	...	...	...	...	.09	.01	...	...	...	...	...	...	...	...	...	...
137	12.88	...	...	...	...	...	...	2.14	.20	5	5.29	...	...	...	...	...	...	.13	.13
2	.19	...	...	...	...	...	...	.07	.01	...	...	...	...	...	...	...	...	...	...
33	3.10	...	...	...	...	...	...	1.73	.16	...	...	...	...	...	...	...	...	.02	.02
2	.19	...	...	...	1	1	0.09	.28	.03	...	...	...	...	...	...	...	...	...	...
48	4.51	...	26	2.44	1	9	.85	3.95	.37	3	3.17	...	...	...	...	2	2.12	.35	.37
45	4.23	...	25	2.35	1	8	.75	3.51	.33	3	3.17	...	...	...	...	2	2.12	.35	.37
1	.09	...	...	...	...	1	.09	.10	.01	...	...	...	...	...	...	...	...	...	...
2	.19	...	1	.09	...	...	...	.34	.03	...	...	...	...	...	...	...	...	...	...
658	155.91	...	13	1.22	1	1	.09	81.78	7.69	233	246.56	...	1	1.06	...	...	...	8.22	8.70
388	36.48	...	16	.56	1	1	.09	23.12	2.17	27	28.57	...	1	1.06	...	...	...	2.26	2.39
379	35.61	...	...	...	...	...	...	12.83	1.21	30	31.75	...	...	...	...	...	...	1.28	1.35
891	83.78	...	7	.66	...	...	...	45.83	4.31	176	186.24	...	...	...	...	...	...	4.68	4.95
6	.56	...	3	.28	...	...	...	1.04	.10	...	...	...	...	...	...	...	...	...	...
18	1.69	...	...	...	...	...	...	.83	.08	...	...	...	...	...	...	...	...	.04	.05
45	4.23	...	...	...	...	...	...	2.19	.21	...	...	...	...	...	...	...	...	.10	.10
2	2.63	...	...	...	...	...	...	1.13	.11	...	...	...	...	...	...	...	...	.10	.10
17	1.60	...	2	.18	...	...	...	1.06	.10	...	...	...	...	...	...	...	...	...	...
2	.19	...	...	...	1	1	.09	.04	.00	...	...	...	...	...	...	...	...	...	...
2	.19	...	3	.28	...	...	...	.37	.03	...	...	...	...	...	...	...	...	...	...
173	16.27	...	1	.09	...	...	...	2.79	.26	[illegible]	5.52	...	...	...	...	...	...	.09	.10
1	.09	...	...	...	...	...	...	.02	.00	...	...	...	...	...	...	...	...	...	...
3	.28	...	...	...	...	...	...	.05	.00	...	...	...	...	...	...	...	...	...	...
2	.19	...	...	...	...	...	...	.02	.00	...	...	...	...	...	...	...	...	...	...
1	.09	...	...	...	...	...	...	.18	.02	...	...	...	...	...	...	...	...	...	...
1	.09	...	...	...	1	1	.09	.01	.00	...	...	...	...	...	...	...	...	...	...
2	.19	...	...	...	...	...	...	.17	.02	...	...	...	...	...	...	...	...	...	...
43	4.01	...	37	3.48	...	1	.09	4.55	.43	7	7.41	...	1	.06	...	...	...	.61	.65
9	.85	...	4	.38	...	...	...	.54	.05	...	...	...	...	...	...	...	...	...	...
58	5.45	...	2	.19	...	...	...	2.55	.24	6	6.35	...	...	...	...	...	...	.47	.50
46	4.33	...	...	...	...	...	...	.78	.07	4	4.23	...	...	...	...	...	...	.05	.05
1	.09	...	...	...	...	...	...	.09	.01	...	...	...	...	...	...	...	...	...	...
1	.09	...	...	...	...	...	...	.11	.01	...	...	...	...	...	...	...	...	...	...
2	.19	...	...	...	1	1	.09	.17	.02	1	1.06	...	...	...	...	...	...	.09	.10
18	1.69	...	4	.38	1	1	.09	1.26	.12	6	6.35	...	1	.06	...	...	...	.90	.95
2	.19	...	...	...	...	...	...	.10	.01	...	...	...	...	...	...	...	...	...	...
1	.09	...	...	...	...	...	...	.06	.01	...	...	...	...	...	...	...	...	...	...
75	7.05	...	...	...	...	...	...	3.00	.19	15	15.87	...	...	...	...	...	...	.63	.67
13	1.22	...	1	.09	...	...	...	1.21	.11	...	...	...	...	...	...	...	...	...	...
39	3.67	...	...	...	...	...	...	1.91	.18	...	...	...	...	...	...	...	...	...	...
99	9.31	...	...	...	...	...	...	3.98	.37	4	4.23	...	...	...	...	...	...	.32	.34
177	16.65	...	...	...	...	...	...	2.42	.23	1	1.06	...	...	...	...	...	...	.06	.07
10	.94	...	...	...	...	...	...	.16	.01	...	...	...	...	...	...	...	...	...	...

Number of discharges and deaths, including those of cases invalided home and deducted from the
ited States.

TABLE No. 72.—*Admissions to sick report, deaths, discharges, and noneffectiveness, wit men, white and colored*

Serial Nos.	International classification.		Philippine Islands, total American, enlisted men, white and colored.									
		Mean strength	S. G. O., 11,580—A. G. O., 11,580.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Non-effective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
203-204	88	Diseases of the thyroid body	6	0.52	....	....	....	....	....	....	0.40	0.0
205-206	89-90	Bronchitis	414	35.75	....	....	....	....	....	....	8.69	.7
207	91	Broncho-pneumonia	3	.26	....	....	....	1	1	0.09	.19	.0
208	92	Pneumonia	7	.60	....	....	....	....	1	.09	.54	.0
209-215	93	Pleurisy	50	4.32	....	1	0.09	....	....	....	3.20	.2
216-217	94	Pulmonary congestion and pulmonary apoplexy	1	.09	....	....	....	....	....	....	.03	.0
219	96	Asthma	12	1.04	....	1	.09	....	....	....	.60	.0
220	97	Pulmonary emphysema	....	....	....	....	....	....	....	....	.20	.0
221	98a	Haemoptysis	2	.17	....	....	....	....	....	....	.11	.0
224-227	99a	Diseases of the teeth and gums	45	3.89	....	....	....	....	....	....	.91	.0
228-231	99b	Other diseases of the mouth and annexa	18	1.55	....	....	....	....	....	....	.36	.0
232-236	100	Diseases of the pharynx	570	49.22	....	....	....	....	....	....	8.93	.7
238	102	Ulcer of stomach	2	.17	....	....	....	....	....	....	.11	.0
239-244	103	Other diseases of stomach (cancer excepted)	166	14.34	....	1	.09	....	....	....	3.00	.2
245-253	105	Diarrhea and enteritis	609	52.59	....	....	....	1	1	.09	7.30	.6
254	106	Ankylostomiasis	12	1.04	....	....	....	....	....	....	.61	.0
255-259	107	Intestinal parasites	26	2.25	....	....	....	....	....	....	.47	.0
260	108	Appendicitis	150	12.95	....	1	.09	1	2	.17	9.03	.7
261-263	109	Hernia	52	4.49	....	....	....	1	1	.09	4.51	.3
264-267	110a	Diseases of the anus and fæcal fistula	16	1.38	....	....	....	....	....	....	.43	.0
268-272	110b	Other diseases of the intestines	439	37.91	....	5	.43	1	1	.09	6.47	.5
276	114	Biliary calculi	3	.26	....	....	....	....	....	....	.29	.0
277-281	115	Other diseases of liver and gall bladder	76	6.56	....	1	.09	1	1	.09	2.99	.2
283-284	117	Simple peritonitis	2	.17	....	....	....	....	....	....	.07	.0
288	119	Acute nephritis	22	1.90	....	....	....	....	....	....	.99	.0
289-291	120	Bright's disease	16	1.38	....	2	.17	....	1	.09	1.44	.1
293-299	122	Other diseases of the kidney and annexa	9	.78	....	....	....	....	1	.09	.64	.0
303-306	124	Diseases of the bladder	21	1.81	....	1	.09	....	....	....	.90	.0
304	124b	Enuresis	8	.69	....	1	.09	....	....	....	.35	.0
307-309	125	Diseases of the urethra, urinary abscess, etc	24	2.07	....	....	....	....	....	....	.33	.0
310-312	126	Diseases of the prostate	1	.09	....	....	....	....	....	....	.01	.0
313-319	127	Diseases of the male genital organs (nonvenereal)	45	3.89	....	....	....	....	....	....	1.47	.1
322-323	143	Furuncle and carbuncle	122	10.54	....	....	....	....	....	....	1.83	.1
324-325	144	Acute abscess and cellulitis	204	17.62	....	....	....	....	....	....	6.07	.5
352-357	146	Diseases of the bones	33	2.85	....	....	....	....	....	....	1.24	.1
358-360	147	Diseases of the joints	34	2.94	....	6	.52	....	....	....	2.41	.2
367	147g	Flat foot	67	5.79	1	22	1.90	....	....	....	3.32	.2
372	150	Congenital malformations	78	6.74	....	2	.17	....	....	....	2.33	.2
373-374	154	Senility	....	....	....	....	....	....	....	....	....	....
375	189Aa	Fabricula, simple, continued, and other fevers of undetermined causation	58	5.01	....	....	....	....	....	....	1.15	.1
379	189Ba	Under observation, undiagnosed and unknown	11	.95	....	....	....	....	....	....	.61	.0
380	189Bb	Malingering	3	.26	....	....	....	....	....	....	.20	.0

[1] Number of discharges and deaths which actually occurred.

atios per 1,000 of mean strength, for Philippine Islands, American troops, enlisted
ear 1916—Continued.

Philippine Islands, white American, enlisted men.										Philippine Islands, colored American, enlisted men.									
S. G. O., 10,635—A. G. O., 10,635.										S. G. O., 945—A. G. O., 945.									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
6	0.56							0.40	0.04										
394	37.05							8.17	.77	20	21.16							0.52	0.55
3	.28				1	1	0.09	.19	.02										
7	.66					1	.09	.54	.05										
44	4.14		1	0.09				2.91	.27	6	6.35							.29	.31
1	.09							.03	.00										
10	.94		1	.09				.57	.05	2	2.12							.03	.03
								.20	.02										
2	.19							.11	.01										
39	3.67							.83	.08	6	6.35							.08	.08
17	1.60							.35	.03	1	1.06							.01	.01
497	46.74							7.85	.74	73	77.25							1.07	1.13
2	.19							.11	.01										
149	14.01		1	.09				2.77	.26	17	17.99							.22	.24
528	49.65				1	1	.09	6.52	.61	81	85.72							.78	.83
11	1.03							.60	.06	1	1.06							.01	.01
25	2.35							.46	.04	1	1.06							.02	.02
143	13.45		1	.09		1	.09	8.28	.78	7	7.41				1	1	1.06	.75	.79
47	4.42		1	.09	1	1	.09	3.83	.36	5	5.29							.68	.72
16	1.50							.43	.04										
392	36.86		5	.47	1	1	.09	6.11	.57	47	49.74							.37	.39
3	.28							.29	.03										
74	6.96		1	.09	1	1	.09	2.91	.27	2	2.12							.08	.09
1	.09							.06	.01	1	1.06							.01	.01
14	1.32							.64	.06	8	8.47							.34	.36
16	1.50		2	.19		1	.09	1.44	.14										
9	.85					1	.09	.64	.06										
20	1.88		1	.09				.80	.08	1	1.06							.10	.11
8	.75		1	.09				.35	.03										
15	1.41							.20	.02	9	9.52							.14	.14
1	.09							.01	.00										
39	3.67							1.16	.11	6	6.35							.31	.32
108	10.16							1.52	.15	14	14.82							.32	.34
181	17.02							4.90	.46	23	24.34							1.17	1.24
31	2.91							1.22	.12	2	2.12							.02	.02
31	2.91		5	.47				1.87	.18	3	3.17		1	1.06				.54	.57
67	6.30	1	22	2.07				3.32	.31										
77	7.24		1	.09				2.27	.22	1	1.06		1	1.06				.04	.05
57	5.36							1.11	.10	1	1.06							.04	.04
11	1.03							.61	.06										
3	.28							.20	.02										

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[2] Number of discharges and deaths, including those of cases invalided home and deducted from the nited States.

TABLE No. 72.—*Admissions to sick report, deaths, discharges, and noneffectiveness, wit*
men, white and colore

Serial Nos.	International classification.		Philippine Islands, total American, enlisted men white and colored.									
		Mean strength	S. G. O., 11,580—A. G. O., 11,580.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Non-effective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426–434	155–163	Suicides, all	1	0.09	....	....	.....	6	6	0.53	......	...
435	164	Poisoning by food	103	8.89	....	....	.....	....	....	.....	......	...
436	165a	Venomous bites and stings	14	1.21	....	....	.....	....	....	.....	......	...
437	165b	Other poisoning (deleterious gases excepted)	3	.26	....	....	.....	....	....	.....	......	...
439	167	Burns (conflagrations excepted)	37	3.20	....	....	.....	....	....	.....	......	...
442	169	Drowning, accidental	.....	......	....	....	.....	4	4	.35	......	...
443	170	Traumatism by firearms (other than specified)	19	1.64	....	....	.....	1	1	.09	......	...
445	171	Traumatism by cutting or piercing instruments	109	9.41	....	....	.....	....	....	.....	......	...
446	172	Traumatism by fall	301	25.99	....	6	0.52	1	1	.09	......	...
447	173	Traumatism in mines and quarries	1	.09	....	....	.....	1	.09	.....	......	...
448	174	Traumatism by machines	13	1.12	....	....	.....	....	....	.....	......	...
449	175	Traumatism by other crushing	119	10.28	....	2	.17	6	6	.52	......	...
450	176	Injuries by animals	112	9.67	....	....	.....	....	....	.....	......	..
453	179	Effects of heat	24	2.07	....	....	.....	....	....	.....	......	..
456–458	182–4	Homicides, all	1	.09	....	....	.....	1	1	.09	......	..
460	186	Other external violence	558	48.19	....	4	.35	....	....	.....	......	..
		DISEASES AND INJURIES GROUPED.										
		General diseases	3,413	294.73	....	46	3.97	5	18	1.55	139.92	12.
	1–19	Epidemic diseases	1,207	104.23	....	....	.....	1	1	.09	37.39	3.
	20–59	Other general diseases	2,206	190.50	....	46	3.97	4	17	1.47	102.53	8.
		Diseases of the nervous system and organs of special sense	458	39.55	....	50	4.32	1	2	1.17	19.86	1.
	60–74	Of the nervous system	200	17.27	....	49	4.23	1	2	.17	13.69	1
	75	Of the eye and its annexa	154	13.30	....	1	.09	....	....	.....	3.61	
	76	Of the ear and its annexa	104	8.98	....	....	.....	....	....	.....	2.56	
	77–85	Diseases of the circulatory system	290	25.04	....	6	.52	2	2	.17	13.35	1
	86–98	Diseases of the respiratory system	687	59.33	....	2	.17	1	2	.17	16.69	1
	99–118	Diseases of the digestive system	2,187	188.86	....	8	.69	6	6	.52	45.50	3
	119–127	Diseases of the genito-urinary system	143	12.35	....	3	.26	....	2	.17	6.30	
	142–145	Diseases of the skin and cellular tissue	666	57.52	....	3	.26	....	....	.....	18.36	1
	146–149	Diseases of the organs of locomotion	273	23.58	1	33	2.85	....	....	.....	11.50	
	150	Malformations, etc	78	6.74	....	2	2.17	....	....	.....	2.34	
	189	Ill-defined diseases	78	6.74	....	....	.....	....	....	.....	2.03	
		Total for disease	8,273	714.42	1	152	13.13	15	32	2.76	275.74	2
	155–186	External causes	1,438	124.18	....	15	1.30	20	20	1.73	47.15	4
		Total for disease and external causes	9,711	838.60	1	167	14.42	35	52	4.49	322.89	27

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from
United States.

tios per 1,000 of mean strength, for Philippine Islands, American troops, enlisted
ear 1916—Continued.

Philippine Islands, white American, enlisted men.										Philippine Islands, colored American, enlisted men.									
S. G. O., 10,635—A. G. O., 10,635.										S. G. O., 945—A. G. O., 945.									
Admissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
1	0.09	...	...	...	6	6	0.53	...	...	...	...	...	...	...	...	...	...	...	...
50	4.70	...	...	...	...	...	...	...	...	53	56.08	...	...	...	...	...	...	...	...
11	1.03	...	...	...	...	...	...	...	...	3	3.17	...	...	...	...	...	...	...	...
3	.28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	3.20	...	...	...	...	...	...	...	...	3	3.17	...	...	...	...	...	...	...	...
...	...	...	...	...	4	4	.38	...	...	...	...	...	...	...	...	...	...	...	...
10	.94	...	...	...	...	...	...	...	...	9	9.52	...	...	...	1	1	0.09	...	...
89	8.37	...	...	...	...	...	...	...	...	20	21.16	...	...	...	...	...	...	...	...
259	24.36	...	5	0.47	1	1	09	...	...	42	44.45	...	1	1.06	...	...	...	...	...
1	.09	...	...	...	1	1	.09	...	...	...	...	...	...	...	...	...	...	...	...
9	.85	...	...	...	...	...	...	...	...	4	4.23	...	...	...	...	...	...	...	...
91	8.56	...	2	.19	6	6	.56	...	...	28	29 63	...	...	...	...	...	...	...	...
66	6 21	...	...	...	...	...	...	...	...	46	48 68	...	...	...	...	...	...	...	...
18	1.69	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	.09	...	...	...	1	1	09	...	...	...	...	...	...	...	...	...	...	...	...
460	43.25	...	4	.38	...	...	...	...	...	98	103.70	...	...	...	...	...	...	...	...
3,065	288.20	...	45	4.23	4	15	1.41	126.66	11.91	348	368.25	...	1	1.06	1	3	3.17	13.26	14.03
1,105	103 90	...	...	...	...	...	...	33.13	3.12	102	107.93	...	...	...	1	1	1.06	4.26	4.51
1,960	184 30	...	45	4.23	4	15	1.41	93.53	8.79	246	260.32	...	1	1.06	...	2	2.12	9.00	9.53
426	40.06	1	49	4 53	1	2	.19	17.84	1.68	32	33 86	...	1	1.06	...	...	...	2.02	2.13
185	17.40	...	48	4.51	1	2	.19	12.15	1.14	15	15.87	...	1	1.06	...	...	...	1.54	1.63
147	13 82	...	1	.02	...	...	...	3.51	.33	7	7.41	...	...	...	...	...	...	.10	.11
94	8.84	...	...	...	...	...	...	2.19	.21	10	10.58	...	...	...	...	...	...	.37	.39
264	24 83	...	5	.47	2	2	.19	11.30	1.06	26	27.51	...	1	1.06	...	...	...	1.94	2.06
658	61 88	...	2	.19	1	2	.19	15.80	1.49	29	30.69	...	...	...	...	...	...	.90	.95
1,945	182 90	...	8	.75	4	5	.47	41.42	3.89	242	256.08	...	...	...	1	1	.06	4.08	4.31
118	11.10	...	3	.28	...	2	.19	4.95	.47	25	26.46	...	...	...	...	...	...	1.34	1.42
588	55.30	...	3	.28	...	...	...	15.52	1.46	78	82.54	...	...	...	...	...	...	2.84	3.00
259	24.35	1	32	3.01	...	...	...	10 31	.97	14	14.81	...	1	1.06	...	...	...	1.19	1.26
77	7.24	...	1	.09	...	...	...	2.29	.22	1	1.06	...	1	1.06	...	...	...	.04	.05
77	7.24	...	...	...	...	...	...	1.99	.19	1	1.06	...	...	...	...	...	...	.04	.04
7,477	703.06	1	148	13.92	13	28	2 63	248.08	23.33	796	842.33	...	4	4.23	2	4	4.23	27.66	29.27
1,126	105.88	...	14	1.32	19	19	1.79	37.68	3.54	312	330.16	...	1	1.06	1	1	1.06	9 47	10.02
8,603	808.93	1	162	15.23	32	47	4.42	285.76	26.87	1,108	1,172.49	...	5	5.29	3	5	5.29	37.13	39.29

[3] Noneffectiveness of individual external causes not tabulated.

TABLE 72½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
ye

Serial Nos.	International classification.		Officers.								
		Mean strength	294								
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.
1	1	Typhoid fever	1	3.40							0.02
2	1a	Paratyphoid fever	1	3.40							.01
7-11	4	Malaria	1	3.40							.00
7		Estivo-autumnal fever									
10		Tertian malarial fever	1	3.40							.00
11		Undetermined malarial fever									
12	5	Smallpox and varioloid	1	3.40							.03
13	5b	Vaccinia									
14	6	Measles									
15	7	Scarlet fever									
18	10	Influenza									
21-23	14	Dysentery	4	13.61							.07
21		Bacillary									
22		Entamebic	2	6.80							.05
23		Unclassified	2	6.80							.02
27	18	Erysipelas									
34	19g	Mumps									
37	20	Purulent infection and septicemia									
49-57	28-34	Tuberculosis, all									
49-51	28	Tuberculosis of lungs									
53-57	30-34	Tuberculosis of other organs									
58	36	Scoliosis (rickets)									
59-74	37-38	Venereal diseases, all	1	3.40							.00
59-64	37	Syphilis									
65-67	38a	Soft chancre									
68-74	38b	Gonococcus infection	1	3.40							.00
75-79	39-45	Cancer and other malignant tumors							1	3.40	
80	46	Benign tumors	1	3.40							.01
81-85	47-48	Rheumatism, articular, all	1	3.40							.01
81-82	47	Acute articular rheumatism	1	3.40							.01
83-85	48	Chronic articular rheumatism									
87-88	50	Diabetes									
89	51	Exophthalmic goitre									
97-100	56	Alcoholism and results	2	6.80							.02
103-104	59	Other chronic poisoning, including drug habit									
105-106	60	Encephalitis									
108	61a	Epidemic cerebrospinal meningitis									
109	62	Locomotor ataxia									
116	64	Cerebral hemorrhage, apoplexy									
117-119	66	Paralysis without specified cause									
120-126	67-68	Mental alienation									
127	69	Epilepsy									
129-133	73	Neuralgia and neuritis	4	13.61							.02
138-141	75a	Follicular conjunctivitis									
166	77	Pericarditis									
167	78	Acute endocarditis									
169-174	79	Organic heart disease	1	3.40							.01
175	80	Angina pectoris									
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	3	10.20				1	1	3.40	.02
178-179	82	Embolism and thrombosis									
181	83b	Hemorrhoids	6	20.41							.06
183	83d	Varicose veins									
184	83e	Varicocele									
185-187	84	Diseases of the lymphatic system									
193-199	86	Diseases of the nasal fossae	5	17.01							.02
200-202	87	Diseases of the larynx	2	6.80							.01
203-204	88	Diseases of the thyroid body									
205-206	89-90	Bronchitis	4	13.61							.05

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[1] Number of discharges and deaths which actually occurred.

ios per 1,000 of mean strength, for United States punitive expedition in Mexico,
16.

Enlisted men, white and colored.										Officers and enlisted men, white and colored.									
6,170										1,879									
imissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
6	0.75							0.60	0.07	7	0.84							0.62	0.07
90	11.18							7.72	.96	91	10.91							7.73	.93
249	30.94							3.39	.42	250	29.96							3.39	.41
79	9.82							1.23	.15	79	9.47							1.23	.15
73	9.07							1.23	.15	74	8.87							1.24	.15
97	12.05							.92	.11	97	11.63							.92	.11
										1	.12							.03	.00
9	1.12							.08	.01	9	1.08							.08	.01
8	.99							.33	.04	8	.96							.33	.04
4	.50							.38	.05	4	.48							.38	.05
20	2.48							.19	.02	20	2.40							.19	.02
190	23.61		2	0.25	2	2	0.25	5.43	.67	194	23.25		2	0.25	2	2	0.24	5.49	.66
10	1.24				1	1	.12	.20	.03	10	1.20				1	1	.12	.20	.02
121	15.03		2	.25	1	1	.12	4.19	.52	123	14.74		2	.25	1	1	.12	4.24	.52
59	7.33							1.03	.13	61	7.31							1.05	.13
2	.25							.06	.01	2	.24							.06	.01
13	1.62							.22	.03	13	1.56							.22	.03
1	.12				3	3	.37	.03	.00	1	.12				3	3	.36	.03	.00
16	1.99		17	2.11		1	.12	.41	.05	16	1.92		17	2.11		1	.12	.41	.05
12	1.49		17	2.11		1	.12	.27	.03	12	1.44		17	2.11		1	.12	.27	.03
4	.49							.14	.02	4	.48							.14	.02
1	.12							.03	.00	1	.12							.03	.00
538	66.84		22	2.73	2	2	.25	17.83	2.21	539	64.60		22	2.73	2	2	.24	17.83	2.14
174	21.62		12	1.49	2	2	.25	5.97	.74	174	20.86		12	1.49	2	2	.24	5.97	.72
102	12.67							3.53	.44	102	12.22							3.53	.42
262	32.55		10	1.24				8.33	1.03	263	31.52		10	1.24				8.33	1.00
3	.37		1	.12				.05	.01	3	.36		1	.12		1	.12	.05	.01
7	.87		2	.25				.33	.04	8	.96		2	.25				.33	.04
60	7.46		4	.49				1.74	.21	61	7.31		4	.49				1.75	.21
47	5.84		1	.12				1.31	.16	48	5.75		1	.12				1.33	.16
13	1.62		3	.37				.43	.05	13	1.56		3	.37				.43	.05
			2	.25									2	.25					
3	.37		2	.25				.00	.00	3	.36		2	.25				.00	.00
7	.87		1	.12				.04	.01	9	1.08		1	.12				.06	.01
3	.37		1	.12				.14	.02		.36		1	.12				.14	.02
1	.12				1	1	.12	.02	.00	3	.12				1	1	.12	.02	.00
1	.12							.01	.00	1	.12							.01	.00
1	.12									1	.12								
9	1.12		13	1.62				.13	.02	9	1.08		13	1.62				.13	.02
10	1.24		5	.62				.28	.03	10	1.20		5	.62				.28	.03
48	5.96		1	.12				1.18	.15	52	6.23		1	.12				1.20	.14
44	5.47							.86	.11	44	5.27							.86	.10
1	.12							.02	.00	1	.12							.02	.00
1	.12				1	1	.12	.06	.01	1	.12				1	1	.12	.06	.01
9	1.12		4	.50				.11	.01	10	1.20		4	.50				.12	.01
1	.12		3	.37				.01	.00	4	.48		3	.37	1	1	.12	.03	.00
1	.12							.05	.01	1	.12							.05	.01
91	11.31							1.56	.19	97	11.63							1.61	.19
9	1.12		3	.37				.18	.02	9	1.08		3	.37				.19	.02
11	1.37							.20	.02	11	1.32							.20	.02
59	7.33							2.75	.34	59	7.07							2.75	.33
40	4.97							.44	.0[illegible]	45	5.39							.46	.06
5	.62							.09	.01	7	.84							.10	.01
2	.25		1	.12				.03	.00	2	.24		1	.12				.03	.00
162	20.13							2.11	.26	166	19.90							2.17	.26

Number of discharges and deaths, including those of cases invalided home and deducted from the
ited States.

TABLE 72½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
1916–

Serial Nos.	International classification.		Officers.										
		Mean strength	294										
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Non-effective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
207	91	Broncho-pneumonia	1	3.40	....	....	.....	....	....	.....	0.02	0.0
208	92	Pneumonia	1	3.40	....	....	.....	....	....	.....	.05	.1
209–215	93	Pleurisy	.....	......	....	....	.....	....	....	.....	......	...
219	96	Asthma	3	10.20	....	....	.....	....	....	.....	.04	.1
222	98b	Hay fever	1	3.40	....	....	.....	....	....	.....	.01	.0
224–227	99a	Diseases of the teeth and gums	14	47.62	....	....	.....	....	....	.....	.08	.2
228–231	99b	Other diseases of the mouth and annexa	.....	......	....	....	.....	....	....	.....	......	...
232–236	100	Diseases of the pharynx	13	44.22	....	....	.....	....	....	.....	.13	.4
238	102	Ulcer of stomach	.....	......	....	....	.....	....	....	.....	......	...
239–244	103	Other diseases of stomach (cancer excepted)	.....	......	....	....	.....	....	....	.....	......	...
245–253	105	Diarrhea and enteritis	79	268.71	....	....	.....	....	....	.....	1.06	3.
255–259	107	Intestinal parasites	1	3.40	....	....	.....	....	....	.....	.02	.
260	108	Appendicitis	13	44.22	....	....	.....	....	....	.....	.13	.
261–263	109	Hernia	3	10.20	....	....	.....	....	....	.....	.02	.
264–267	110a	Diseases of the anus and fæcal fistula	.....	......	....	....	.....	....	....	.....	......	...
268–272	110b	Other diseases of the intestines	3	10.20	....	....	.....	....	....	.....	.01	.
275	113	Cirrhosis of liver	.....	......	....	....	.....	....	....	.....	......	...
276	114	Biliary calculi	1	3.40	....	....	.....	....	....	.....	.01	.
277–281	115	Other diseases of liver and gall bladder	3	10.20	....	....	.....	....	....	.....	.07	.
283–284	117	Simple peritonitis	.....	......	....	....	.....	....	....	.....	......	...
288	119	Acute nephritis	.....	......	....	....	.....	....	....	.....	......	...
289–291	120	Bright's disease	.....	......	....	....	.....	....	....	.....	......	...
293–299	122	Other diseases of the kidney and annexa	.....	......	....	....	.....	....	....	.....	......	...
303–306	124	Diseases of the bladder	.....	......	....	....	.....	....	....	.....	......	...
307–309	125	Diseases of the urethra, urinary abcess, etc	.....	......	....	....	.....	....	....	.....	......	...
310–312	126	Diseases of the prostate	.....	......	....	....	.....	....	....	.....	......	...
313–319	127	Diseases of the male genital organs (nonvenereal)	1	3.40	....	....	.....	....	....	.....	.01	.
322–323	143	Furuncle and carbuncle	2	6.80	....	....	.....	....	....	.....	.01	.
324–325	144	Acute abscess and cellulitis	2	6.80	....	....	.....	....	....	.....	.02	.
352–357	146	Diseases of the bones	3	10.20	....	....	.....	....	....	.....	.02	.
358–360	147	Diseases of the joints	1	3.40	....	....	.....	....	....	.....	.00	.
372	150	Congenital malformations	.....	......	....	....	.....	....	....	.....	......	...
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	3	10.20	....	....	.....	....	....	.....	.06	.
379	189Ba	Under observation, undiagnosed and unknown	3	10.20	....	....	.....	....	....	.....	.05	.
380	189Bb	Malingering	.....	......	....	....	.....	....	....	.....	......	...
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]										
426–434	155–163	Suicides, all	.....	......	....	....	.....	....	....	.....	......	...
435	164	Poisoning by food	4	13.61	....	....	.....	....	....	.....	......	...
436	165a	Venomous bites and stings	1	3.40	....	....	.....	....	....	.....	......	...
439	167	Burns (conflagrations excepted)	1	3.40	....	....	.....	....	....	.....	......	...
440	168	Absorption of deleterious gases	.....	......	....	....	.....	....	....	.....	......	...
442	169	Drowning, accidental	.....	......	....	....	.....	....	....	.....	......	..
443	170	Traumatism by firearms (other than specified	3	10.20	....	....	.....	....	....	.....	......	..
444	170a	Shot by sentry or guard	.....	......	....	....	.....	....	....	.....	......	..
445	171	Traumatism by cutting or piercing instruments	2	6.80	....	....	.....	....	....	.....	......	..
446	172	Traumatism by fall	[illegible]	17.01	....	....	.....	....	....	.....	......	..
448	174	Traumatism by machines	.....	......	....	....	.....	....	....	.....	......	..
449	175	Traumatism by other crushing	.....	......	....	....	.....	....	....	.....	......	..
450	176	Injuries by animals	4	13.61	....	....	.....	....	....	.....	......	..

[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from
United States.

tios per 1,000 of mean strength, for United States punitive expedition in Mexico, year
ntinued.

Enlisted men, white and colored.										Officers and enlisted men, white and colored.									
6,170										1,879									
lmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
umber.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
3	0.37	...	...	...	...	...	...	0.07	0.01	4	0.48	...	...	...	...	...	...	0.08	0.01
19	2.36	...	...	...	3	3	0.37	.75	.09	20	2.40	...	...	...	3	3	0.36	.80	.10
30	3.73	...	1	0.12	...	...	...	.42	.05	30	3.60	...	1	0.12	...	...	...	.42	.05
6	.75	...	1	.12	...	...	...	.08	.01	9	1.08	...	1	.12	...	...	...	.12	.01
1	.12	...	...	...	...	...	...	.02	.00	2	.24	...	...	...	...	...	...	.02	.00
184	22.86	...	...	...	...	...	...	1.44	.18	198	23.73	...	...	...	...	...	...	1.52	.18
3	.37	...	...	...	...	...	...	.04	.01	3	.36	...	...	...	...	...	...	.04	.01
418	51.93	...	...	...	...	...	...	5.77	.72	431	51.66	...	...	...	...	...	...	5.89	.71
2	.25	...	1	.12	...	...	...	.04	.00	2	.24	...	1	.12	...	...	...	.04	.00
112	13.91	...	...	...	...	...	...	1.66	.21	112	13.42	...	...	...	...	...	...	1.66	.20
532	190.33	...	...	...	1	1	.12	17.31	2.15	1,611	193.10	...	...	...	1	1	.12	18.40	2.21
7	.87	...	...	...	...	...	...	.06	.01	8	.96	...	...	...	...	...	...	.08	.01
66	8.20	...	...	...	...	...	...	1.79	.22	79	9.47	...	...	...	...	...	...	1.92	.23
50	6.21	...	6	.75	...	...	...	.84	.10	53	6.35	...	6	.75	...	...	...	.86	.10
9	1.12	...	...	...	...	...	...	.23	.03	9	1.08	...	...	...	...	...	...	.23	.03
126	15.65	...	2	.25	...	...	...	1.02	.13	129	15.46	...	2	.25	...	...	...	1.03	.12
2	.25	...	...	...	...	1	.12	.03	.00	2	.24	...	...	...	...	1	.12	.03	.00
1	.12	...	...	...	...	...	...	.01	.00	2	.24	...	...	...	...	...	...	.02	.00
18	2.24	...	...	...	...	...	...	.44	.05	21	2.52	...	...	...	...	...	...	.51	.06
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	.50	...	...	...	...	...	...	.10	.01	4	48	...	...	...	...	...	...	.10	.01
4	.50	...	2	.24	...	...	...	.12	.01	4	48	...	2	.24	...	...	...	.12	.01
4	.50	...	...	...	...	...	...	.04	.00	4	.48	...	...	...	...	...	...	.04	.00
10	1.24	...	2	.25	...	...	...	.31	.04	10	1.20	...	2	.25	...	...	...	.31	.04
8	.99	...	...	...	...	...	...	.08	.01	8	.96	...	...	...	...	...	...	.08	.01
1	.12	...	...	...	...	...	...	.00	.00	1	.12	...	...	...	...	...	...	.00	.00
38	4.72	...	1	.12	...	...	...	.89	.11	39	4.67	...	1	.12	...	...	...	.91	.11
135	16.77	...	...	...	...	...	...	1.93	.24	137	16.42	...	...	...	...	...	...	1.93	.23
109	13.54	...	...	...	...	...	...	2.25	.28	111	13.30	...	...	...	...	...	...	2.27	.27
28	3.48	...	1	.12	...	...	...	.75	.09	31	3.72	...	1	.12	...	...	...	.77	.09
47	5.84	...	4	.50	...	...	...	1.07	.13	48	5.75	...	4	.50	...	...	...	1.08	.13
7	.87	...	...	...	...	...	...	.19	.02	7	.84	...	...	...	...	...	...	.19	.02
199	24.72	...	...	...	...	...	...	6.55	.81	202	24.21	...	...	...	...	...	...	6.61	.79
19	2.36	...	...	...	1	1	.12	.28	.03	22	2.64	...	...	...	1	1	.12	.33	.04
3	.37	...	...	...	...	...	...	.01	.00	3	.36	...	...	...	...	...	...	.01	.00
...	...	...	...	...	4	4	.50	...	...	...	...	...	...	...	4	4	.48	...	...
55	6.83	...	...	...	...	...	...	...	...	59	7.07	...	...	...	...	...	...	...	...
6	.75	...	...	...	...	...	...	...	...	7	.84	...	...	...	...	...	...	...	...
25	3.11	...	...	...	...	...	...	...	...	26	3.12	...	...	...	...	...	...	...	...
1	.12	...	...	...	1	1	.12	...	...	1	.12	...	...	...	1	1	.12	...	...
...	...	...	...	...	2	2	.25	...	...	...	...	...	...	...	2	2	.24	...	...
70	8.70	...	10	1.24	3	3	.37	...	...	73	4.60	...	10	1.24	3	3	.36	...	...
1	.12	...	1	.12	...	...	...	...	...	1	.12	...	1	.12	...	...	...	...	...
41	5.09	...	...	...	...	...	...	...	...	43	5.15	...	...	...	...	...	...	...	...
228	28.33	...	8	.99	...	...	...	...	...	233	27.93	...	8	.99	...	...	...	...	...
5	.62	...	1	.12	...	...	...	...	...	5	.60	...	1	.12	...	...	...	...	...
44	5.47	...	2	.25	1	1	.12	...	...	44	5.27	...	2	.25	1	1	.12	...	...
165	20.50	...	1	.12	...	...	...	...	...	169	20.26	...	1	.12	...	...	...	...	...

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[3] Noneffectiveness for individual external causes not tabulated.

TABLE 72½.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
1916–

Serial Nos.	International classification.		Officers.									
		Mean strength	294									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Non-effective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.										
453	179	Effects of heat	2	6.80	....	....	.....	....	....	.....	......	...
454	180	Effects of lightning	....	......	....	....	.....	....	....	.....	......	...
456–458	182–4	Homicides, all	....	......	....	....	.....	....	....	.....	......	...
460	186	Other external violence	5	17.01	....	....	.....	....	....	.....	......	...
462–466	....	Killed or wounded in action	5	17.01	....	....	.....	2	2	6.80	......	...
462	....	By bullet	5	17.01	....	....	.....	2	2	6.80	......	...
466	....	By other weapon	....	......	....	....	.....	....	....	.....	......	...
		DISEASES AND INJURIES GROUPED.										
		General diseases	17	57.82	....	....	.....	....	1	3.40	0.18	0.
	1–19	Epidemic diseases	10	34.01	....	....	.....	....	....	.....	.13	.
	20–59	Other general diseases	7	23.81	....	....	.....	....	1	3.40	.05	.
		Diseases of the nervous system and organs of special sense	9	30.61	....	....	.....	....	....	.....	.06	.
	60–74	Of the nervous system	6	20.41	....	....	.....	....	....	.....	.03	.
	75	Of the eye and its annexa	3	10.20	....	....	.....	....	....	.....	.03	.
	76	Of the ear and its annexa	....	......	....	....	.....	....	....	.....	......	...
	77–85	Diseases of the circulatory system	10	34.01	....	....	.....	1	1	3.40	.10	.
	86–98	Diseases of the respiratory system	17	57.82	....	....	.....	....	....	.....	.20	.
	99–118	Diseases of the digestive system	130	442.18	....	....	.....	....	....	.....	1.52	5.
	119–127	Diseases of the genito-urinary system	1	3.40	....	....	.....	....	....	.....	.01	.
	142–145	Diseases of the skin and cellular tissue	10	34.01	....	....	.....	....	....	.....	.17	.
	146–149	Diseases of the organs of locomotion	6	20.41	....	....	.....	....	....	.....	.06	.
	150	Malformations, etc	....	......	....	....	.....	....	....	.....	......	...
	189	Ill-defined diseases	6	20.41	....	....	.....	....	....	.....	.11	.
		Total for disease	206	700.68	....	....	.....	1	2	6.80	2.42	8.
	155–186	External causes	33	112.24	....	....	.....	2	2	6.80	.43	1.
		Total for disease and external causes	239	812.93	....	....	.....	3	4	13.61	2.85	9.

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[1] Number of discharges and deaths which actually occurred.

atios per 1,000 of mean strength, for United States punitive expedition in Mexico, year ontinued.

Enlisted men, white and colored.										Officers and enlisted men, white and colored.									
6,170										1,879									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
17	2.11	...	...	...	...	...	...	...	...	19	2.28	...	...	...	...	...	...	...	...
1	.12	...	...	...	1	1	0.12	...	...	1	.12	...	...	...	1	1	0.12	...	...
2	.25	...	...	...	7	7	.87	...	...	2	.24	...	...	...	7	7	.84	...	...
282	35.03	...	3	0.37	...	...	...	...	...	287	34.40	...	3	0.37	...	...	...	...	...
27	3.35	...	2	.25	24	25	3.11	...	...	32	3.84	...	2	.25	26	27	3.24	...	...
26	3.23	...	2	.25	24	25	3.11	...	...	31	3.72	...	2	.25	26	27	3.24	...	...
1	.12	...	...	...	...	...	...	...	...	1	.12	...	...	...	...	...	...	...	...
1,416	175.92	...	55	6.83	7	8	.99	39.77	4.94	1,433	171.76	...	55	6.83	7	9	1.08	39.95	4.79
607	75.41	...	2	.25	2	2	.25	18.50	2.30	617	73.95	...	2	.25	2	2	.24	18.63	2.23
809	100.51	...	53	6.58	5	6	.75	21.27	2.64	816	97.80	...	53	6.58	5	7	.84	21.32	2.56
237	29.45	...	24	2.98	1	1	.12	4.52	.55	246	29.49	...	24	2.98	1	1	.12	4.58	.55
82	10.19	...	22	2.73	1	1	.12	1.89	.23	88	10.55	...	22	2.73	1	1	.12	1.92	.23
92	11.43	...	2	.25	...	...	...	1.57	.19	95	11.39	...	2	.25	...	...	...	1.60	.19
63	7.83	...	...	...	...	...	...	1.06	.13	63	7.55	...	...	...	...	...	...	1.06	.13
196	24.35	...	11	1.37	1	1	.12	5.29	.66	206	24.69	...	11	1.37	2	2	.24	5.39	.65
269	33.42	...	3	.37	3	3	.37	4.04	.50	286	34.28	...	3	.37	3	3	.36	4.24	.51
2,532	314.57	...	10	1.24	2	3	.37	30.75	3.82	2,662	319.07	...	10	1.24	2	3	.36	32.27	3.87
72	8.95	...	6	.75	...	...	...	1.60	.20	73	8.75	...	6	.75	...	...	...	1.61	.19
360	44.73	...	...	...	...	...	...	7.11	.88	370	44.35	...	...	...	...	...	...	7.28	.87
219	27.21	...	13	1.62	...	...	...	4.16	.52	225	26.97	...	13	1.62	...	...	...	4.22	.51
7	.87	...	...	...	...	...	...	.19	.02	7	.84	...	...	...	...	...	...	.19	.02
226	28.08	...	...	...	1	1	.12	6.90	.86	232	27.81	...	...	...	1	1	.12	7.01	.84
5,534	687.54	...	122	15.16	15	17	2.11	104.31	12.96	5,740	688.00	...	122	15.16	16	19	2.28	106.73	12.79
987	122.62	...	30	3.73	43	44	5.47	21.43	2.66	1,020	122.26	...	30	3.73	45	46	5.51	21.86	2.62
6,521	810.16	...	152	18.89	58	61	7.58	125.74	15.62	6,760	810.26	...	152	18.89	61	65	7.79	128.58	15.41

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[2] Number of discharges and deaths, including those of cases invalided home and deducted from the nited States.

TABLE NO. 73.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wi*
Canal Zone, and Chin

Serial Nos.	International classification.		Alaska, officers and enlisted men.									
		Mean strength	S. G. O., 770—A. G. O., 767.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Non-effective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio
2	1a	Paratyphoid fever									0.00	0.
7–11	4	Malaria										
7		Estivo-autumnal fever										
8		Malarial cachexia										
9		Quartan malarial fever										
10		Tertian malarial fever										
11		Undertermined malarial fever										
13	5b	Vaccinia	1	1.30							.00	
14	6	Measles										
15	7	Scarlet fever										
17	9	Diphtheria										
18	10	Influenza	4	5.19							.05	
19	12	Asiatic cholera										
20	13	Cholera nostras										
21–23	14	Dysentery										
21		Bacillary										
22		Entamebic										
23		Unclassified										
27	18	Erysipelas										
29	19b	Dengue										
31	19d	German measles										
32	19e	Haemoglobinuric fever										
34	19g	Mumps										
37	20	Purluent infection and septicemia	1	1.30							.01	
41	24	Tetanus										
42–46	25	Mycoses										
48	27	Beriberi										
49–57	28–34	Tuberculosis, all	1	1.30		1	1.34				.02	
49–51	28	Tuberculosis of lungs	1	1.30		1	1.34				.02	
52	29	Miliary tuberculosis, acute										
53–57	30–34	Tuberculosis of other organs										
58	36	Scoliosis (rickets)										
59–74	37–38	Venereal diseases, all	15	19.48		1	1.34				.54	
59–64	37	Syphilis	2	2.60							.09	
65–67	38a	Soft chancre	1	1.30								
68–74	38b	Gonococcus infection	12	15.58		1	1.34				.44	
75–79	39–45	Cancer and other malignant tumors										
80	46	Benign tumors	2	2.60							.01	
81–85	47–48	Rheumatism, articular, all	2	2.60							.03	
81–82	47	Acute articular rheumatism	1	1.30							.01	
83–85	48	Chronic articular rheumatism	1	1.30							.02	
87–88	50	Diabetes										
89	51	Exophthalmic goiter	2	2.60		1	1.34					
97–100	56	Alcoholism and results	7	9.09							.07	
101–102	57–58	Chronic occupational poisoning										
103–104	59	Other chronic poisoning, including drug habit										
108	61a	Epidemic cerebrospinal meningitis										
109	62	Locomotor ataxia										
117–119	66	Paralysis without specified cause										
120–126	67–68	Mental alienation	2	2.60		4	5.37				.10	
127	69	Epilepsy										
129–133	73	Neuralgia and neuritis	2	2.60							.02	
138–141	75a	Follicular conjunctivitis	1	1.30							.01	
142	75b	Trachoma										
169–174	79	Organic heart disease	1	1.30							.01	
175	80	Angina pectoris										
181	83b	Hemorrhoids	9	11.69							.28	
183	83d	Varicose veins										
184	83e	Variocele										
185–187	84	Diseases of the lymphatic system										
193–199	86	Diseases of the nasal fossæ	1	1.30							.02	

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[1] Number of discharges and deaths which actually occurred.

atios per 1,000 of mean strength, for American troops serving in Alaska, Panama
ear 1916.

Panama Canal Zone, officers and enlisted men.										China, officers and enlisted men.									
S. G. O., 7,023—A. G. O., 7,025.										S. G. O., 1,369—A. G. O., 1,369.									
Admissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
...	...	...	...	...	...	...	...	...	...	1	0.73	...	...	...	...	...	...	0.04	0.03
467	66.50	...	...	...	...	...	...	14.40	2.05	12	8.77	...	...	...	...	...	...	.22	.16
200	28.48	...	...	...	...	...	...	7.18	1.02	...	...	...	...	...	...	...	...	...	...
1	.14	...	...	...	...	...	...	.01	.00	...	...	...	...	...	...	...	...	...	...
2	.28	...	...	...	...	...	...	.07	.01	...	...	...	...	...	...	...	...	...	...
228	32.46	...	...	...	...	...	...	5.90	.84	11	8.04	...	...	...	...	...	...	.16	.12
36	5.13	...	...	...	...	...	...	1.24	.18	1	.73	...	...	...	...	...	...	.06	.04
3	.43	...	...	...	...	...	...	.02	.00	...	...	...	...	...	...	...	...	...	...
8	1.14	...	...	...	...	...	...	.36	.05	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	8	5.84	...	...	...	1	1	0.73	.75	.55
1	.14	...	...	...	...	...	...	.03	.00	...	...	...	...	...	...	...	...	...	...
271	38.59	...	...	...	...	...	...	4.61	.66	23	16.80	...	...	...	...	...	...	.38	.28
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	1.28	...	...	...	...	...	...	.64	.09	5	3.65	...	...	...	...	...	...	.15	.11
1	.14	...	...	...	...	...	...	.01	.00	...	...	...	...	...	...	...	...	...	...
3	.43	...	...	...	...	...	...	.34	.05	2	1.46	...	...	...	...	...	...	.06	.05
5	.71	...	...	...	...	...	...	.28	.04	3	2.19	...	...	...	...	...	...	.09	.07
...	...	...	...	...	...	...	...	...	...	4	2.92	...	...	...	...	...	...	.19	.14
118	16.80	...	...	...	...	...	...	2.91	.41	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	.71	...	...	...	...	...	...	.13	.02	7	5.11	...	...	...	...	...	...	.32	.23
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	4.13	...	27	3.98	...	1	0.14	2.67	.38	2	1.46	...	3	2.19	1	2	1.46	.14	.11
26	3.70	...	24	3.54	...	1	.14	2.06	.29	2	1.46	...	3	2.19	1	2	1.46	.14	.11
1	.14	...	1	.15	...	...	...	.24	.03	...	...	...	...	...	...	...	...	...	...
2	.28	...	2	.30	...	...	...	.37	.05	...	...	...	...	...	...	...	...	...	...
2	.28	...	1	.15	...	...	...	.11	.02	...	...	...	...	...	...	...	...	...	...
812	115.62	...	9	1.33	...	...	...	36.81	5.25	390	284.88	...	1	.73	1	1	.73	19.09	13.95
133	18.94	...	5	.74	...	...	...	10.02	1.43	77	56.25	...	...	...	1	1	.73	4.25	3.11
253	36.02	...	...	...	...	...	...	10.00	1.42	165	120.53	...	...	...	...	...	...	7.01	5.12
426	60.66	...	4	.59	...	...	...	16.86	2.40	148	108.11	...	1	.73	...	...	...	7.83	5.72
2	.28	...	...	...	...	2	.28	.21	.00	...	...	...	...	...	...	...	...	...	...
6	.85	...	...	...	...	...	...	.10	.01	1	.73	...	...	...	...	...	...	.00	.00
27	3.84	...	...	...	...	...	...	.60	.09	6	4.38	...	...	...	...	...	...	.21	.16
23	3.27	...	...	...	...	...	...	.53	.08	4	2.92	...	...	...	...	...	...	.15	.11
4	.57	...	...	...	...	...	...	.07	.01	2	1.46	...	...	...	...	...	...	.07	.05
2	.28	...	...	...	1	1	.14	.03	.00	...	...	...	...	...	...	...	...	...	...
1	.14	...	3	.44	...	...	...	.17	.02	...	...	...	...	...	...	...	...	...	...
89	12.67	...	...	...	...	...	...	1.33	.19	22	16.07	...	1	.73	1	1	.73	.53	.39
1	.14	...	1	.15	...	...	...	.25	.04	...	...	...	...	...	...	...	...	...	...
1	.28	...	...	...	...	...	...	.03	.00	3	2.19	...	...	...	...	...	...	.06	.04
1	.14	...	...	...	...	...	...	.04	.01	...	...	...	...	...	...	...	...	...	...
1	.14	...	...	...	...	1	.14	.46	.07	...	...	...	...	...	...	...	...	...	...
6	.85	1	1	.14	...	...	...	.26	.04	...	...	...	...	...	...	...	...	...	...
25	3.56	8	20	2.95	...	...	...	5.12	.73	4	2.92	...	1	.73	...	...	...	.34	.25
12	1.71	7	7	1.03	...	...	...	1.16	.06	1	.73	...	...	...	...	...	...	.02	.02
32	4.56	...	...	...	...	...	...	1.00	.14	1	.73	...	...	...	...	...	...	.31	.22
35	4.98	1	1	.15	...	...	...	1.26	.18	4	2.92	...	...	...	...	...	...	.03	.02
1	.14	1	1	.15	...	...	...	.08	.01	...	...	...	...	...	...	...	...	...	...
4	.57	1	4	.59	...	...	...	.69	.10	1	.73	...	1	.73	1	1	.73	.16	.11
1	.14	...	...	...	...	...	...	.01	.00	...	...	...	...	...	...	...	...	...	...
3	.43	...	...	...	...	...	...	1.96	.28	9	6.57	...	...	...	...	...	...	.21	.16
13	1.85	3	3	.44	...	...	...	1.31	.19	...	...	...	...	...	...	...	...	...	...
20	2.85	...	...	...	...	...	...	1.35	.19	...	...	...	...	...	...	...	...	...	...
142	20.22	...	...	...	...	...	...	9.10	1.30	44	32.14	...	...	...	...	...	...	2.07	1.51
129	18.37	...	...	...	...	...	...	2.08	.30	2	1.46	...	...	...	...	...	...	.13	.01

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the Jnited States.

TABLE No. 73.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit*
Canal Zone, and Chin

Serial Nos.	International classification.		Alaska, officers and enlisted men.									
		Mean strength	S. G. O., 770—A. G. O., 767.									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
200–202	87	Diseases of the larynx	1	1.30							0.01	0.
203–204	88	Diseases of the thyroid body	1	1.30							.03	.
205–206	89–90	Bronchitis	9	11.69							.27	.
207	91	Broncho-pneumonia										
208	92	Pneumonia				1	1.34					
209–215	93	Pleurisy										
216–217	94	Pulmonary congestion and pulmonary apoplexy										
219	96	Asthma										
220	97	Pulmonary emphysema										
222	98b	Hay fever										
224–227	99a	Diseases of the teeth and gums										
228–231	99b	Other diseases of the mouth and annexa										
232–236	100	Diseases of the pharynx	26	33.77							.36	.
238	102	Ulcer of stomach	13	16.88								
239–244	103	Other diseases of stomach (cancer excepted)	13	16.88							.14	.
245–253	105	Diarrhea and enteritis	4	5.19							.07	.
254	106	Ankylostomiasis	1	1.30							.02	.
255–259	107	Intestinal parasites										
260	108	Appendicitis	8	10.39							.59	.
261–263	109	Hernia	4	5.19							.33	.
264–267	110a	Diseases of the anus and fæcal fistula										
268–272	110b	Other diseases of the intestines	5	6.49							.05	.
276	114	Biliary calculi										
277–281	115	Other diseases of liver and gall bladder	3	3.90							.06	.
288	119	Acute nephritis										
289–291	120	Bright's disease	1	1.30					1	1.30	.27	.
293–299	122	Other diseases of the kidney and annexa	1	1.30							.06	.
303–306	124	Diseases of the bladder	1	1.30							.03	.
304	124b	Enuresis	1	1.30							.03	.
307–309	125	Diseases of the urethra, urinary abscess, etc										
310–312	126	Diseases of the prostate										
313–319	127	Diseases of the male genital organs (nonvenereal)	5	6.49							.16	.
322–323	143	Furuncle and carbuncle	2	2.60							.03	.
324–325	144	Acute abscess and cellulitis	1	1.30							.06	.
352–357	146	Diseases of the bones	2	2.60							.13	.
358–360	147	Diseases of the joints	2	2.60							.02	.
367	147g	Flat foot	5	6.49		4	5.37				.05	.
372	150	Congenital malformations	10	12.99							.11	.
373–374	154	Senility										
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation										
379	189Ba	Under observation, undiagnosed, and unknown										
380	189Bb	Malingering										

[1] Number of discharges and deaths which actually occurred.

tios per 1,000 of mean strength, for American troops serving in Alaska, Panama
ear 1916—Continued.

Panama Canal Zone, officers and enlisted men.										China, officers and enlisted mn.									
S. G. O., 7,023—A. G. O., 7,025.										S. G. O., 1,369—A. G. O., 1,369.									
dmissions.		Discharges.			Deaths.			Non-effective.		Admissions.		Discharges.			Deaths.			Non-effective.	
Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
		(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
2	0.28							0.02	0.00	3	2.19							0.04	0.03
4	.57	1	2	0.30				.73	.10	1	.73							.01	.01
276	39.30							6.41	.91	43	31.41							1.08	.79
2	.28							.04	.01	2	1.46							.16	.12
2	.28							.08	.01	9	6.57		1	0.73	4	4	2.92	.40	.29
24	3.42	1	1	.15				1.27	.18	4	2.92							.35	.26
1	.14							.01	.00	1	.73							.02	.02
2	.28							.46	.07										
3	.43					1	0.14	.04	.01										
										1	.73							.01	.00
21	2.99							.34	.05	5	3.65							.04	.03
3	.43							.04	.01	6	4.38							.05	.03
226	32.18							4.25	.61	77	56.25							1.07	.78
2	.28				1	1	.14	.21	.03										
69	9.82		1	.15				1.25	.18	3	2.19							.13	.10
217	30.90				1	1	.14	3.61	.51	95	69.39							.89	.65
4	.57							.08	.01	2	1.46							.02	.01
80	11.39				1	1	.14	6.38	.91	19	13.88							1.95	1.42
31	4.41		1	.15	1	1	.14	2.20	.31	6	4.38							.84	.61
17	2.42							1.14	.16										
342	48.70		1	.15				4.84	.69	69	50.40							.78	.57
1	.14							.10	.01										
23	3.27							.81	.11	18	13.15							.57	.42
4	.57							.15	.02	1	.73							.05	.04
4	.57		2	.30				.67	.10	3	2.19		2	1.46				.19	.14
13	1.85							1.34	.19	1	.73							.17	.13
16	2.28							.71	.10	1	.73		2	1.46				.06	.04
2	.28							.14	.02	1	.73		2	1.46				.06	.04
10	1.42							.18	.03	6	4.38							.06	.04
5	.71							.15	.02										
18	2.56		1	.15				.74	.11	11	8.04							.17	.13
184	26.20							2.67	.38	15	10.96							.33	.24
143	20.37							3.35	.48	15	10.95							.61	.44
36	5.13		1	.15				2.39	.34	5	3.65							.07	.05
21	2.99		2	.30				2.10	.30	8	5.84		1	.73				.83	.60
28	3.99		8	1.18				1.42	.20	9	6.57		3	2.19				.47	.34
32	4.56							1.01	.15	1	.73							.01	.01
1	.14							.09	.01										
22	3.13							.69	.10										
4	.57		1	.15				.08	.01	1	.73							.17	.13
1	.14							.05	.01										

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the
nited States.

TABLE NO. 73.—*Admissions to sick report, discharges, deaths, and noneffectiveness, w*
Canal Zone, and Chi

Serial Nos.	International classification.		Alaska, officers and enlisted men.									
		Mean strength....................	S. G. O., 770—A. G. O., 767.								
		Causes of admission to sick report,	Admissions.		Discharges.			Deaths.			Non-effectiv
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.
					(1)	(2)		(1)	(2)		
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.									
426–434	155–163	Suicides, all..........	....	....	....	....	....	....	....	....	....
435	164	Poisoning by food..........	....	....	....	....	....	....	....	....	....
436	165a	Venomous bites and stings..........	....	....	....	....	....	....	....	....	....
437	165b	Other poisoning (deleterious gases excepted)..........	1	1.30	....	....	....	....	1	1.30	....
438	166	Conflagration..........	2	2.60	....	....	....	....	3	3.91	....
439	167	Burns (conflagrations excepted)..	....	....	....	....	....	....	....	....	....
442	169	Drowning, accidental..........	....	....	....	....	....	....	....	....	....
443	170	Traumatism by firearms (other than specified)..........	2	2.60	....	....	....	....	....	....	....
444	170a	Shot by sentry or guard..........	....	....	....	....	....	....	....	....	....
445	171	Traumatism by cutting or piercing instruments..........	15	19.48	....	....	....	....	....	....	....
446	172	Traumatism by fall..........	18	23.38	....	....	....	....	....	....	....
447	173	Traumatism in mines and quarries..........	....	....	....	....	....	....	....	....	....
448	174	Traumatism by machines..........	....	....	....	....	....	....	....	....	....
449	175	Traumatism by other crushing...	....	....	....	....	....	....	....	....	....
450	176	Injuries by animals..........	....	....	....	....	....	....	....	....	....
452	178	Effects of excessive cold..........	7	9.09	....	....	....	....	....	....	....
453	179	Effects of heat..........	....	....	....	....	....	....	....	....	....
456–458	182–4	Homicides, all..........	....	....	....	....	....	....	....	....	....
460	186	Other external violence..........	27	35.06	....	....	....	....	....	....	....
462–466	....	Killed or wounded in action......	....	....	....	....	....	....	....	....	....
462	....	By bullet..........	....	....	....	....	....	....	....	....	....
		DISEASES AND INJURIES GROUPED.									
		General diseases..........	36	46.75	....	3	4.03	....	....	....	0.74
	1–19	Epidemic diseases..........	6	7.79	....	....	....	....	....	....	.06
	20–59	Other general diseases..........	30	38.96	....	3	4.03	....	....	....	.68
		Diseases of the nervous system and organs of special sense......	16	13.78	....	6	8.05	....	....	....	.35
	60–74	Of the nervous system..........	7	2.09	....	6	8.05	....	....	....	.22
	75	Of the eye and its annexa....	6	7.79	....	....	....	....	....	....	.09
	76	Of the ear and its annexa.....	3	3.90	....	....	....	....	....	....	.04
	77–85	Diseases of the circulatory system.	11	14.29	....	....	....	....	....	....	.34
	86–98	Diseases of the respiratory system.	13	16.88	....	1	1.34	....	....	....	.33
	99–118	Diseases of the digestive system..	64	83.12	....	....	....	....	....	....	1.63
	119–127	Diseases of the genito-urinary system..........	10	12.99	....	....	....	....	1	1.30	.55
	142–145	Diseases of the skin and cellular tissue..........	9	11.69	....	....	....	....	....	....	.27
	146–149	Diseases of the organs of locomotion..........	17	22.08	....	4	5.37	....	....	....	.49
	150	Malformations, etc..........	10	12.99	....	....	....	....	....	....	.11
	154	Diseases, results of old age..........	....	....	....	....	....	....	....	....	....
	189	Ill-defined diseases..........	....	....	....	....	....	....	....	....	....
		Total for disease..........	186	241.56	....	14	18.79	....	1	1.30	4.80
	155–186	External causes..........	75	97.40	....	2	2.68	....	4	5.22	2.14
		Total for disease and external causes..........	261	338.96	....	16	21.48	....	5	6.52	6.93

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[1] Number of discharges and deaths which actually occurred.

tios per 1,000 of mean strength, for American troops serving in Alaska, Panama
ear 1916—Continued.

Panama Canal Zone, officers and enlisted men.										China, officers and enlisted men.									
S. G. O., 7,023—A. G. O., 7,025.										S. G. O., 1,369—A. G. O., 1,369.									
dmissions.		Discharge.			Deaths.			Non-effective.		Admission.		Discharges.			Deaths.			Non-effective.	
Number	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
2	0.28	...	...	...	1	3	0.42	...	...	1	0.73	...	...	...	2	2	1.46	...	...
4	.57	...	...	...	...	...	...	...	...	20	14.61	...	...	...	...	...	...	...	...
4	.57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	1.42	...	...	...	...	...	...	...	...	1	.73	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	4.56	...	...	...	...	...	...	...	...	1	.73	...	...	...	...	...	...	...	...
...	...	...	...	...	6	6	.85	...	...	...	...	...	...	...	1	1	.73	...	...
15	2.14	...	2	0.28	2	2	.28	...	...	3	2.19	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
180	25.63	...	...	...	...	...	...	...	...	9	6.57	...	...	...	...	...	...	...	...
209	29.76	...	2	.28	1	1	.14	...	...	35	25.57	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	1.00	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63	8.97	...	1	.15	2	2	.28	...	...	3	2.19	...	...	...	...	...	...	...	...
63	8.97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	2.71	...	...	...	...	...	...	...	...	1	.73	...	...	...	...	...	...	...	...
2	.28	...	...	...	2	2	.28	...	...	...	...	...	...	...	...	...	...	...	...
387	55.10	...	2	.30	1	1	.14	...	...	57	4.64	...	...	...	...	...	...	...	...
...	...	...	1	.15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1	.15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,857	264.42	...	41	6.04	1	4	.57	65.79	9.37	485	354.27	...	5	3.65	5	5	3.65	22.22	16.23
882	125.59	...	...	...	...	...	...	23.10	3.29	60	43.83	...	...	...	1	1	.73	2.04	1.49
975	138.83	...	41	6.04	1	4	.57	42.68	6.08	425	310.45	...	5	3.65	4	4	2.92	20.17	14.74
278	39.58	9	37	5.45	1	2	.28	15.56	2.22	31	22.64	...	3	2.19	...	...	...	1.16	.85
125	17.80	9	31	4.57	1	2	.28	9.78	1.39	16	11.69	...	2	1.46	...	...	...	.72	.53
93	13.24	...	3	.44	...	...	...	4.04	.58	6	4.38	...	1	.73	...	...	...	.12	.09
60	8.54	...	3	.44	...	...	...	1.73	.25	9	6.57	...	...	...	...	...	...	.31	.23
254	36.17	1	9	1.33	...	...	...	15.30	2.18	54	39.44	...	...	...	1	1	.73	2.44	1.78
446	63.51	1	3	.44	1	1	.14	11.44	1.63	66	48.21	...	1	.73	4	4	2.92	2.21	1.61
1,031	147.66	...	3	.44	4	4	.57	25.27	3.60	300	19.14	...	...	...	...	...	...	6.33	4.62
73	10.39	...	3	.44	...	...	...	4.23	.60	23	16.80	...	4	2.92	...	...	...	.71	.52
674	95.97	...	1	.15	...	...	...	15.00	2.14	56	40.91	...	...	...	...	...	...	1.73	1.26
197	28.05	...	13	1.92	...	...	...	10.16	1.45	49	35.79	...	4	2.92	...	...	...	1.66	1.22
32	4.56	...	...	...	...	...	...	1.02	.15	1	.73	...	...	...	...	...	...	.01	.01
1	.14	...	...	...	...	...	...	.09	.01	...	...	...	...	...	...	...	...	...	...
29	4.27	...	1	.15	...	...	...	.85	.12	1	.73	...	...	...	...	...	...	.17	.13
4,878	694.67	11	111	16.36	7	11	1.57	164.69	23.45	1,066	778.67	...	18	13.15	10	11	8.04	38.64	28.22
1,012	144.10	1	14	2.06	15	17	2.42	28.77	4.10	131	95.69	...	...	...	3	3	2.19	3.21	2.35
5,890	838.67	12	125	18.43	22	28	3.99	193.45	27.55	1,197	874.36	...	18	13.15	13	14	10.23	41.85	30.57

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[2] Number of discharges and deaths, including those of cases invalided home and deducted from the nited States.

TABLE NO. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1916.*

Serial Nos.	International classification.		Hawaii, officers and enlisted men.										Hawaii, enlisted men.									
		Mean strength	S. G. O., 8,789—A. G. O., 8,810.										8,476									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
1	1	Typhoid fever	2	0.23							0.80	0.09	1	0.12							0.51	0.06
7–11	4	Malaria	18	2.05							.48	.05	18	2.12							.48	.06
10		Tertian malarial fever	18	2.05							.48	.05	18	2.12							.48	.06
13	5b	Vaccinia	1	.11							.02	.00	1	.12							.02	.00
14	6	Measles	23	2.62							1.28	.15	23	2.71							1.28	.15
17	9	Diphtheria	1	.11							.03	.00	1	.12							.03	.00
18	10	Influenza	114	12.97							2.01	.23	105	12.39							1.79	.21
21–23	14	Dysentery	33	3.75		2	0.24				2.34	.27	33	3.89		2	0.24				2.34	.28
21		Bacillary	3	.34							.14	.02	3	.35							.14	.02
22		Entamebic	21	2.39		2	.24				1.89	.21	21	2.48		2	.24				1.89	.22
23		Unclassified	9	1.02							.31	.03	9	1.06							.31	.04
34	19g	Mumps	10	1.14							.48	.05	9	1.06							.43	.05
37	20	Purulent infection and septicemia	1	.11				1	1	0.11	.02	.00	1	.12				1	1	0.12	.02	.00
42–46	25	Mycoses	1	.11							.01	.00	1	.12							.01	.00
49–57	28–34	Tuberculosis, all	28	3.19		25	2.95	2	6	.68	2.52	.29	27	3.19		25	2.95	2	6	.71	2.46	.29
49–51	28	Tuberculosis of lungs	24	2.73		23	2.71	1	5	.57	1.57	.18	23	2.71		23	2.71	1	5	.59	1.52	.18
52	29	Miliary tuberculosis, acute	1	.11				1	1	.11	.16	.02	1	.12				1	1	.12	.16	.02
53–57	30–34	Tuberculosis of other organs	3	.34		2	.24				.79	.09	3	.36		2	.24				.79	.09
59–74	37–38	Venereal diseases, all	833	94.78	1	12	1.42				47.91	5.45	832	98.16	1	12	1.42				47.56	5.61
59–64	37	Syphilis	180	20.48	1	9	1.06				13.60	1.55	180	21.24	1	9	1.06				13.33	1.57
65–67	38a	Soft chancre	243	27.65							15.86	1.80	243	28.67							15.86	1.87
68–74	38b	Gonococcus infection	410	46.65		3	.35				18.47	2.10	409	48.26		3	.35				18.37	2.17
75–79	39–45	Cancer and other malignant tumors	4	.46							.29	.03	4	.47							.29	.03
80	46	Benign tumors	13	1.48							.28	.03	12	1.42							.27	.03
81–85	47–48	Rheumatism, articular, all	10	1.14		1	.12				.25	.03				1	.12				.25	.03
81–82	47	Acute articular rheumatism	8	.91							.23	.03	8	.94							.23	.03
83–85	48	Chronic articular rheumatism	2	.23		1	.12				.02	.00	2	.24		1	.12				.02	.00
89	51	Exophthalmic goiter	3	.34		3	.35				.68	.08	3	.35		3	.35				.68	.08
97–100	56	Alcoholism and results	97	11.04		1	.12				1.52	.17	96	11.33		1	.12				1.51	.18

		habit	16	1.82	....	1	.12	....	....	....	.21	.02	16	1.88	....	1	.12	....	....	....	.21	.02
108	61a	Epidemic cerebrospinal meningitis	1	.11	....	1	.12	....	....	....	.06	.00	1	.12	....	1	.12	....	....	....	.06	.01
110-115	63	Other diseases of spinal cord	....	....	....	1	.12	....	....	....	....	....	....	....	....	1	.12	....	....	....	....	....
117-119	66	Paralysis without specified cause	6	.68	....	2	.24	....	....	....	.17	.02	6	.71	....	2	.24	....	....	....	.17	.02
120-126	67-68	Mental alienation	43	4.89	....	32	3.78	....	1	.11	4.20	.48	41	4.83	....	32	3.78	....	1	.12	3.84	.45
127	69	Epilepsy	5	.57	....	3	.35	....	....	....	.28	.03	5	.59	....	3	.35	....	....	....	.28	.03
129-133	73	Neuralgia and neuritis	21	2.39	....	4	.47	....	....	....	1.61	.18	19	2.24	....	4	.47	....	....	....	1.46	.17
138-141	75a	Follicular conjunctivitis	34	3.87	....	....	....	....	....	....	.90	.10	30	3.54	....	....	....	....	....	....	.78	.09
169-174	79	Organic heart disease	6	.68	....	2	.24	1	1	.11	.51	.06	5	.59	....	2	.24	....	....	....	.49	.06
175	80	Angina pectoris	1	.11	....	....	....	....	....	....	.00	.00	1	.12	....	....	....	....	....	....	.00	.00
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	1	.11	....	....	....	....	....	....	.22	.02	1	.12	....	....	....	....	....	....	.22	.03
181	83b	Hemorrhoids	77	8.76	....	....	....	....	....	....	1.86	.21	75	8.85	....	....	....	....	....	....	1.81	.21
183	83d	Varicose veins	4	.46	....	1	.12	....	....	....	.36	.04	4	.47	....	1	.12	....	....	....	.36	.04
184	83e	Variocele	22	2.50	....	....	....	....	....	....	1.23	.14	22	2.60	....	....	....	....	....	....	1.23	.15
185-187	84	Diseases of the lymphatic system	36	4.10	....	....	....	....	....	....	2.04	.23	36	4.25	....	....	....	....	....	....	1.99	.23
193-199	86	Diseases of the nasal fossae	67	7.62	....	....	....	....	....	....	1.51	.17	61	7.20	....	....	....	....	....	....	1.42	.17
200-202	87	Diseases of the larynx	1	.11	....	....	....	....	....	....	.01	.00	1	.12	....	....	....	....	....	....	.01	.00
203-204	88	Diseases of the thyroid body	7	.80	....	1	.12	....	....	....	.95	.11	7	.83	....	1	.12	....	....	....	.95	.11
205-206	89-90	Bronchitis	166	18.89	....	....	....	....	....	....	3.28	.37	157	18.52	....	....	....	....	....	....	3.16	.37
207	91	Broncho-pneumonia	2	.23	....	....	....	....	....	....	.13	.01	2	.24	....	....	....	....	....	....	.13	.01
208	92	Pneumonia	3	.34	....	....	....	1	1	.11	.42	.05	3	.35	....	....	....	1	1	.12	.42	.05
209-215	93	Pleurisy	27	3.07	....	2	.24	....	....	....	1.04	.12	26	3.07	....	2	.24	....	....	....	1.03	.12
216-217	94	Pulmonary congestion and pulmonary apoplexy	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
219	96	Asthma	14	1.59	....	....	....	....	....	....	.52	.06	14	1.65	....	....	....	....	....	....	.52	.06
220	97	Pulmonary emphysema	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
221	98a	Haemoptysis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
222	98b	Hay fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
224-227	99a	Diseases of the teeth and gums	32	3.64	....	....	....	....	....	....	.37	.04	30	3.54	....	....	....	....	....	....	.32	.04
228-231	99b	Other diseases of the mouth and annexa	5	.57	....	....	....	....	....	....	.11	.00	5	.59	....	....	....	....	....	....	.11	.01
232-236	100	Diseases of the pharynx	191	21.73	....	....	....	....	....	....	3.81	.43	182	21.47	....	....	....	....	....	....	3.68	.43
238	102	Ulcer of stomach	1	.11	....	....	....	1	1	.11	.10	.01	....	....	....	....	....	....	....	....	....	....
239-244	103	Other diseases of stomach (cancer excepted)	94	10.70	....	....	....	....	....	....	1.29	.15	87	10.26	....	....	....	....	....	....	1.25	.15
245-253	105	Diarrhea and enteritis	145	16.50	....	1	.12	....	....	....	3.12	.36	136	16.05	....	1	.12	....	....	....	2.70	.32
254	106	Ankylostomiasis	4	.46	....	....	....	....	....	....	.17	.02	4	.47	....	....	....	....	....	....	.17	.02
255-259	107	Intestinal parasites	7	.80	....	....	....	....	....	....	.09	.00	7	.83	....	....	....	....	....	....	.09	.01
260	108	Appendicitis	69	7.85	....	....	....	2	2	.23	5.51	.63	66	7.79	....	....	....	2	2	.24	5.20	.61
261-263	109	Hernia	32	3.64	....	....	....	....	....	....	2.80	.32	30	3.54	....	....	....	....	....	....	2.65	.31
264-267	110a	Diseases of the anus and fecal fistula	9	1.02	....	....	....	....	....	....	.30	.03	9	1.06	....	....	....	....	....	....	.30	.04
268-272	110b	Other diseases of the intestines	221	25.15	....	....	....	....	....	....	2.49	.28	212	25.01	....	....	....	....	....	....	2.25	.27
275	113	Cirrhosis of liver	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
276	114	Biliary calculi	1	.11	....	....	....	....	....	....	.15	.02	1	.12	....	....	....	....	....	....	.15	.02
277-281	115	Other diseases of liver and gall bladder	39	4.44	....	....	....	....	....	....	2.25	.26	37	4.37	....	....	....	....	....	....	2.14	.25
283-284	117	Simple peritonitis	....	....	....	....	....	1	1	.11	.01	.00	....	....	....	....	....	1	1	.11	.01	.00
288	119	Acute nephritis	5	.57	....	....	....	1	1	.11	.57	.06	5	.59	....	....	....	1	1	.12	.57	.07
289-291	120	Bright's disease	5	.57	....	1	.12	....	1	.11	.45	.05	4	.47	....	1	.12	....	1	.12	.42	.05
293-299	122	Other diseases of the kidney and annexa	2	.23	....	....	....	....	....	....	.23	.03	2	.24	....	....	....	....	....	....	.23	.03
303-306	124	Diseases of the bladder	21	2.39	....	2	.24	....	....	....	.66	.07	21	2.48	....	2	.24	....	....	....	.66	.08

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home from the United States.

TABLE No. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1916*—Continued.

Serial Nos.	International classification.		Hawaii, officers and enlisted men.										Hawaii, enlisted men.									
		Mean strength	S. G. O., 8,789—A. G. O., 8,810.										8,476									
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions		Discharges.			Deaths.			Noneffective	
			Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
304	124b	Enuresis	13	1.48	....	2	0.24	....	....	......	0.22	0.02	13	1.53	....	2	0.24	....	....	......	0.22	0.03
307–309	125	Diseases of the urethra, urinary abscess, etc.	66	7.51	....	....	......	....	....	......	.88	.10	66	7.79	....	....	......	....	....	......	.88	.10
310–312	126	Diseases of the prostate	1	.11	....	....	......	....	....	......	.05	.00	1	.12	....	....	......	....	....	......	.05	.01
313–319	127	Diseases of the male genital organs (non-venereal)	50	5.69	....	....	......	....	....	......	1.29	.15	49	5.78	....	....	......	....	....	......	1.22	.14
322–323	143	Furuncle and carbuncle	112	12.74	....	....	......	....	....	......	2.72	.31	111	13.10	....	....	......	....	....	......	2.72	.32
324–325	144	Acute abscess and cellulitis	162	18.44	....	....	......	....	....	......	4.52	.51	160	18.88	....	....	......	....	....	......	4.50	.54
352–357	146	Diseases of the bones	7	.80	....	3	.36	....	....	......	.84	.10	7	.83	....	3	.36	....	....	......	.84	.10
358–360	147	Diseases of the joints	19	2.16	....	3	.35	....	....	......	1.56	.18	19	2.24	....	3	.35	....	....	......	1.47	.17
367	147g	Flat foot	40	4.55	....	8	.94	....	....	......	2.15	.24	40	4.72	....	8	.94	....	....	......	2.15	.25
372	150	Congenital malformations	46	5.23	....	....	......	....	....	......	.79	.09	45	5.31	....	....	......	....	....	......	.78	.09
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	3	.34	....	....	......	....	....	......	.12	.01	3	.35	....	....	......	....	....	......	.12	.01
379	189Ba	Under observation, undiagnosed and unknown	11	1.25	....	....	......	....	....	......	.45	.05	11	1.30	....	....	......	....	....	......	.45	.05
380	189Bb	Malingering	7	.80	....	....	......	....	....	......	.12	.01	7	.83	....	....	......	....	....	......	.12	.01
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]																				
426–434	155–163	Suicides, all	2	.23	....	....	......	9	9	1.02	......	......	2	.24	....	....	......	9	9	1.06	......	......
435	164	Poisoning by food	22	2.50	....	....	......	....	....	......	......	......	21	2.48	....	....	......	....	....	......	......	......
436	165a	Venemous bites and stings	4	.46	....	....	......	....	....	......	......	......	4	.47	....	....	......	....	....	......	......	......
437	165b	Other poisoning (deleterious gases excepted)	7	.80	....	....	......	....	....	......	......	......	7	.83	....	....	......	....	....	......	......	......
439	167	Burns (conflagrations excepted)	27	3.07	....	....	......	....	....	......	......	......	25	2.95	....	....	......	....	....	......	......	......
440	168	Absorption of deleterious gases	......	......	....	....	......	....	....	......	......	......	......	......	....	....	......	....	....	......	......	......
441	168a	Suffocation, strangulation	1	.11	....	....	......	....	....	......	......	......	1	.12	....	....	......	....	....	......	......	......
442	169	Drowning, accidental	......	......	....	....	......	11	11	1.25	......	......	......	......	....	....	......	11	11	1.30	......	......

		specified)	[illegible]	[illegible]	....	1	.12	....	....	....	....	....	[illegible]	2.12	....	1	.12	....	....	....	....	....
444	170a	Shot by sentry or guard	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
445	171	Traumatism by cutting or piercing instruments	70	7.96	....	1	.12	....	....	....	....	....	70	8.26	....	1	.12	....	....	....	....	....
446	172	Traumatism by fall	227	25.83	....	3	.35	4	4	.45	....	....	218	25.72	....	3	.35	3	3	.35	....	....
447	173	Traumatism in mines and quarries	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
448	174	Traumatism by machines	4	.46	....	1	.12	....	....	....	....	....	4	.47	....	1	.12	....	....	....	....	....
449	175	Traumatism by other crushing	83	9.44	....	5	.59	....	....	....	....	....	81	9.56	....	5	.59	....	....	....	....	....
459	176	Injuries by animals	48	5.46	....	....	....	....	....	....	....	....	47	5.54	....	....	....	....	....	....	....	....
451	177	Starvation	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
453	179	Effects of heat	4	.46	....	....	....	....	....	....	....	....	4	.47	....	....	....	....	....	....	....	....
455	181	Effects of electricity	2	.23	....	....	....	....	....	....	....	....	2	.24	....	....	....	....	....	....	....	....
456–458	182–184	Homicides, all	1	.11	....	....	....	2	4	.45	....	....	1	.12	....	....	....	2	4	.47	....	....
460	186	Other external violence	409	46.53	....	4	.47	....	....	....	....	....	398	46.95	....	4	.47	....	....	....	....	....
		DISEASES AND INJURIES GROUPED.																				
		General diseases	1,217	138.47	1	45	5.31	3	7	.79	61.30	6.97	1,200	141.58	1	45	5.31	3	7	.83	60.29	7.11
	1–19	Epidemic diseases	208	23.67	....	2	.24	....	....	....	7.56	.86	195	23.01	....	2	.24	....	....	....	6.98	.82
	20–59	Other general diseases	1,009	114.80	1	43	5.07	3	7	.79	53.74	6.11	1,005	118.57	1	43	5.07	3	7	.83	53.31	6.29
		Diseases of the nervous system and organs of special sense	174	19.80	....	46	5.43	....	1	.11	8.97	1.02	163	19.23	....	46	5.43	....	1	.12	8.30	.97
	60–74	Of the nervous system	89	10.13	....	46	5.43	....	1	.11	6.66	.76	83	9.79	....	16	5.43	....	1	.12	6.14	.72
	75	Of the eye and its annexa	64	7.28	....	....	....	....	....	....	1.58	.18	59	6.96	....	....	....	....	....	....	1.44	.17
	76	Of the ear and its annexa	21	2.39	....	....	....	....	....	....	.72	.08	21	2.48	....	....	....	....	....	....	.72	.08
	77–85	Diseases of the circulatory system	159	18.09	....	3	.35	1	1	.11	6.72	.77	156	18.40	....	3	.35	....	....	....	6.60	.78
	86–98	Diseases of the respiratory system	287	32.65	....	3	.35	1	1	.11	7.85	.89	271	31.97	....	3	.35	1	1	.12	7.63	.90
	99–118	Diseases of the digestive system	850	96.71	....	1	.12	4	4	.45	22.57	2.57	806	95.09	....	1	.12	3	3	.35	21.03	2.48
	119–127	Diseases of the genito-urinary system	154	17.52	....	3	.35	1	2	.23	4.74	.54	151	17.81	....	3	.35	1	2	.24	4.38	.52
	142–145	Diseases of the skin and cellular tissue	470	53.48	....	1	.12	....	....	....	13.31	1.51	466	54.98	....	1	.12	....	....	....	13.27	1.57
	146–149	Diseases of the organs of locomotion	162	18.43	....	14	1.65	....	....	....	6.87	.78	154	18.17	....	14	1.65	....	....	....	6.71	.79
	150	Malformations, etc	46	5.23	....	....	....	....	....	....	.79	.09	45	5.31	....	....	....	....	....	....	.78	.09
	189	Ill-defined diseases	26	2.96	....	....	....	....	....	....	.76	.09	25	2.95	....	....	....	....	....	....	.75	.09
		Total for disease	3,545	403.35	1	116	13.69	10	16	1.82	133.87	15.23	3,437	405.50	1	116	13.68	8	14	1.65	129.75	15.31
	155–186	External causes	951	108.20	....	16	1.89	26	28	3.18	34.07	3.88	924	109.01	....	16	1.89	25	27	3.19	33.14	3.91
		Total for disease and external causes	4,496	511.55	1	132	15.57	36	44	4.99	167.94	19.11	4,361	514.51	1	132	15.57	33	41	4.84	162.89	19.22

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

[3] Noneffectiveness for individual external causes not tabulated.

TABLE No. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlistrd men, and separately for white and colored serving in Hawaii, year 1916*—Continued.

Serial No.	Numbers of the international classification.		Hawaii, enlisted men, white.											Hawaii, enlisted men, colored.										
		Mean strength	6,668.											1,808.										
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.			Admissions.		Discharges.			Deaths.			Noneffective.		
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.		Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	
					(1)	(2)		(1)	(2)							(1)	(2)		(1)	(2)				
1	1	Typhoid fever	1	0.15							0.51	0.08												
7–11	4	Malaria	16	2.40							.44	.07		2	1.11							0.04	0.02	
10		Tertian malarial fever	16	2.40							.44	.07		2	1.11							.04	.02	
13	5b	Vaccinia	1	.15							.02	.00												
14	6	Measles	23	3.45							1.28	.19												
17	9	Diphtheria	1	.15							.03	.00												
18	10	Influenza	98	14.70							1.66	.25		7	3.87							.13	.07	
21–23	14	Dysentery	33	4.95		2	0.30				2.34	.35												
21		Bacillary	3	.45							.14	.02												
22		Entamœbic	21	3.15		2	.30				1.89	.28												
23		Unclassified	9	1.35							.31	.05												
34	19g	Mumps	8	1.20							.39	.06		1	.55							.04	.02	
37	20	Purulent infection and septicæmia	1	.15				1	1	0.15	.02	.00												
42–46	25	Mycoses	1	.15							.01	.00												
49–57	28–34	Tuberculosis, all	20	3.00		20	3.00	1	5	.75	1.95	.27		7	3.87	1	5	2.77	1	1	0.55	.52	.29	
49–51	28	Tuberculosis of lungs	16	2.40		18	2.70		4	.60	1.00	.15		7	3.87	1	5	2.77	1	1	.55	.52	.29	
52	29	Miliary tuberculosis, acute	1	.15				1	1	.15	.16	.01												
53–57	30–34	Tuberculosis of other organs	3	.45		2	.30				.89	.11												
59–74	37–38	Venereal diseases, all	586	87.88	1	8	1.20				33.91	5.09		246	136.06		4	2.21				13.65	7.55	
59–64	37	Syphilis	120	18.00	1	5	.75				8.97	1.35		60	33.19		4	2.21				4.36	2.41	
65–67	38a	Soft chancre	161	24.15							10.16	1.48		82	45.35							5.70	3.15	
68–74	38b	Gonococcus infection	305	45.74		3	.45				14.78	2.22		104	57.52							3.59	1.99	
75–79	39–45	Cancer and other malignant tumors	4	.60							.53	.08												
80	46	Benign tumors	10	1.50							.14	.04		2	1.11							.03	.02	
81–85	47–48	Rheumatism, articular, all	5	.75		1	.15				.10	.02		5	2.77							.14	.08	
81–82	47	Acute articular rheumatism	5	.75							.10	.02		3	1.66							.15	.07	
83–85	48	Chronic articular rheumatism				1	.15							2	1.11							.02	.01	
89	51	Exophthalmic goitre	3	.45		3	.45				.68	.10												
97–100	56	Alcoholism and results	81	12.15		1	.15				1.24	.19		15	8.30							.28	.15	

103-104	59	Other chronic poisoning, including drug habit	5	.75	....	1	.15	....	....	....	.06	.01	11	6.08	....	....	....	....	....	....	.15	.08
108	61a	Epidemic cerebrospinal meningitis	1	.15	....	1	.15	....	....	....	.06	.01	....	....	....	....	....	....	....	....	....	....
110-115	63	Other diseases of spinal cord	....	....	....	1	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
117-119	66	Paralysis without specified cause	5	.75	....	2	.30	....	....	....	.12	.02	1	.55	....	....	....	....	....	....	.06	.03
120-126	67-68	Mental alienation	31	4.65	....	24	3.60	....	1	.15	2.73	.41	10	5.53	....	8	4.42	....	....	....	1.12	.62
127	69	Epilepsy	4	.60	....	3	.45	....	....	....	.27	.04	1	.55	....	....	....	....	....	....	.00	.00
129-133	73	Neuralgia and neuritis	15	2.25	....	4	.60	....	....	....	1.42	.21	4	2 21	....	....	....	....	....	....	.05	.03
138-141	75a	Follicular conjunctivitis	20	3.00	....	....	....	....	....	....	.42	.06	10	5.53	....	....	....	....	....	....	.37	.20
169-174	79	Organic heart disease	2	.30	....	1	.15	....	....	....	.24	.03	3	1.66	....	1	55	....	....	....	.25	.14
175	80	Angina pectoris	1	.15	....	....	....	....	....	....	.00	.00	....	....	....	....	....	....	....	....	....	....
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	1	.15	....	....	....	....	....	....	.22	.03	....	....	....	....	....	....	....	....	....	....
181	83b	Hemorrhoids	58	8.70	....	....	....	....	....	....	1.52	.23	17	9.40	....	....	....	....	....	....	.28	.16
183	83d	Varicose veins	3	.45	....	1	.15	....	....	....	.19	.03	1	.55	....	....	....	....	....	....	.16	.09
184	83e	Varicocele	19	2.85	....	....	....	....	....	....	1.12	.17	3	1.66	....	....	....	....	....	....	.11	.06
185-187	84	Diseases of the lymphatic system	30	4.50	....	....	....	....	....	....	1.85	.27	6	3.32	....	....	....	....	....	....	.15	.08
193-199	86	Diseases of the nasal fossæ	48	7.20	....	....	....	....	....	....	1.21	.18	13	7.19	....	....	....	....	....	....	.21	.12
200-202	87	Diseases of the larynx	1	.15	....	....	....	....	....	....	.00	.00	....	....	....	....	....	....	....	....	....	....
203-204	88	Diseases of the thyroid body	7	1.05	....	1	.15	....	....	....	.95	.14	....	....	....	....	....	....	....	....	....	....
205-206	89-90	Bronchitis	127	19.05	....	....	....	....	....	....	2.66	.40	30	16.59	....	....	....	....	....	....	.50	.28
207	91	Broncho-pneumonia	2	.30	....	....	....	....	....	....	.13	.02	....	....	....	....	....	....	....	....	....	....
208	92	Pneumonia	2	.30	....	....	....	1	1	.15	.28	.04	1	.55	....	....	....	....	....	....	.14	.08
209-215	93	Pleurisy	20	3.00	....	2	.30	....	....	....	.90	.14	6	3.32	....	....	....	....	....	....	.13	.07
219	96	Asthma	13	1.95	....	....	....	....	....	....	.51	.08	1	.55	....	....	....	....	....	....	.01	.00
224-227	99a	Diseases of the teeth and gums	25	3.75	....	....	....	....	....	....	.27	.03	5	2.77	....	....	....	....	....	....	.05	.03
228-231	99b	Other diseases of the mouth and annexa	3	.45	....	....	....	....	....	....	.09	.01	2	1.11	....	....	....	....	....	....	.02	.01
232-236	100	Diseases of the pharynx	158	23.70	....	....	....	....	....	....	3.11	.47	24	13.27	....	....	....	....	....	....	.56	.31
238	102	Ulcer of stomach	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	.01
239-244	103	Other diseases of stomach (cancer excepted)	57	8.55	....	....	....	....	....	....	.87	.13	30	16.59	....	....	....	....	....	....	.38	.21
245-253	105	Diarrhea and enteritis	101	15.15	....	1	.15	....	....	....	2.37	.36	35	19.36	....	....	....	....	....	....	.32	.18
254	106	Ankylostomiasis	4	.60	....	....	....	....	....	....	.17	.03	....	....	....	....	....	....	....	....	....	....
255-259	107	Intestinal parasites	6	.90	....	....	....	....	....	....	.08	.01	1	.55	....	....	....	....	....	....	.01	.00
260	108	Appendicitis	54	8.10	....	....	....	1	1	.15	4.46	.67	12	6.44	....	....	....	1	1	.55	.74	.41
261-263	109	Hernia	29	4.35	....	....	....	....	....	....	2.57	.38	1	.55	....	....	....	....	....	....	.09	.05
264 267	110a	Diseases of the anus and fæcal fistula	7	1.05	....	....	....	....	....	....	.25	.03	2	1.11	....	....	....	....	....	....	.05	.03
268-272	110b	Other diseases of the intestines	150	22.50	....	....	....	....	....	....	1.71	.26	62	34.29	....	....	....	....	....	....	.54	.30
275	113	Cirrhosis of liver	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
276	114	Biliary calculi	1	.15	....	....	....	....	....	....	.15	.02	....	....	....	....	....	....	....	....	....	....
277-281	115	Other diseases of liver and gall bladder	33	4.95	....	....	....	....	....	....	2.00	.30	4	2.21	....	....	....	....	....	....	.13	.07
283-284	117	Simple peritonitis	....	....	....	....	....	1	1	.15	.01	.00	....	....	....	....	....	....	....	....	....	....
288	119	Acute nephritis	5	.75	....	....	....	1	1	.15	.57	.09	....	....	....	....	....	....	....	....	....	....
289 291	120	Bright's disease	2	.30	....	....	....	....	....	....	.22	.03	2	1.11	....	1	.55	....	....	....	.20	.11
293 299	122	Other diseases of the kidney and annexa	1	.15	....	....	....	....	....	....	.01	.00	1	.55	....	....	....	....	....	....	.21	.12
303-306	124	Diseases of the bladder	12	1.80	....	2	.30	....	....	....	.28	.04	9	4.98	....	....	....	....	....	....	.37	.21
304	124b	Enuresis	7	1.05	....	2	.30	....	....	....	.13	.02	6	3.32	....	....	....	....	....	....	.09	.05
307-309	125	Diseases of the urethra, urinary abscess, etc.	50	7.50	....	....	....	....	....	....	.61	.09	16	8.85	....	....	....	....	....	....	.26	.15
310 312	126	Diseases of the prostate	1	.15	....	....	....	....	....	....	.05	.00	....	....	....	....	....	....	....	....	....	....
313-319	127	Diseases of the male genital organs (non-venereal)	31	4.65	....	....	....	....	....	....	.64	.10	18	9.96	....	....	....	....	....	....	.57	.32

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

TABLE No. 74.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops, total officers and enlisted men, and separately for white and colored serving in Hawaii, year 1916*—Continued.

Serial No.	Numbers of the international classification.		Hawaii, enlisted men, white.											Hawaii, enlisted men, colored.										
		Mean strength	6,668											1,808										
		Causes of admission to sick report.	Admissions.		Discharges.			Deaths.			Noneffective.		Admissions.		Discharges.			Deaths.			Noneffective.	
			Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.		Ratio.	Number.	Ratio.
					(1)	(2)		(1)	(2)						(1)	(2)		(1)	(2)			
322-323	143	Furuncle and carbuncle	107	16.05							2.67	0.39	4	2.21							0.05	0.03
324-325	144	Acute abscess and cellulitis	144	21.60							3.86	.58	16	8.85							.64	.36
352-357	146	Diseases of the bones	7	1.05		2	0.30				.61	.09				1	0.55				.23	.13
358-360	147	Diseases of the joints	14	2.10		2	.30				1.17	.18	5	2.77		1	.55				.30	.16
367	147g	Flat foot	33	4.95		5	.75				1.94	.19	7	3.87		3	1.66				.20	.11
372	150	Congenital malformations	27	5.04							.50	.08	18	9.96							.28	.15
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	3	.45							.12	.02										
379	189Ba	Under observation, undiagnosed and unknown	8	1.20							.33	.05	3	1.66							.12	.06
380	189Bb	Malingering	3	.45							.03	.00	4	2.21							.09	.05
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]																				
426-434	155-163	Suicides, all	2	.30				8	8	1.20								1	1	0.55		
435	164	Poisoning by food	21	3.15																		
436	165a	Venomous bites and stings	4	.60																		
437	165b	Other poisoning (deleterious gases excepted)	5	.75									2	1.11								
439	167	Burns (conflagrations excepted)	24	3.60									1	.55								
440	168	Absorption of deleterious gases	1	.15																		
441	168a	Suffocation, strangulation																				
442	169	Drowning, accidental						10	10	1.50								1	1	.55		
443	170	Traumatism by firearms (other than specified)	16	2.40		1	.15						2	1.11								
444	170a	Shot by sentry or guard																				
445	171	Traumatism by cutting or piercing instruments	59	8.85									11	6.08		1	.55					
446	172	Traumatism by fall	186	27.90		3	.45	3	3	.45			32	17.70								

449	175	Traumatism by other crushing	73	10.95	....	5	.75	....	....	......	......	......	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	176	Injuries by animals	47	7.05	....	....	......	....	....	......	......	......	....	......	....	....	......	....	....	......	......	......
451	177	Starvation	....	......	....	....	......	....	....	......	......	......	....	......	....	....	......	....	....	......	......	......
453	179	Effects of heat	3	.45	....	....	......	....	....	......	......	......	1	.55	....	....	......	....	....	......	......	......
455	181	Effects of electricity	1	.15	....	....	......	....	....	......	......	......	1	.55	....	....	......	....	....	......	......	......
456-458	182-4	Homicides, all	1	.15	....	....	......	1	1	.15	......	......	....	......	....	....	......	1	3	1.66	......	......
460	186	Other external violence	280	42.00	....	....	......	....	2	.30	......	......	100	55.31	....	2	1.11	....	....	......	......	......
		DISEASES AND INJURIES GROUPED.																				
		General diseases:	898	134.67	1	36	5.40	2	6	.90	45.17	6.77	302	167.04	....	9	4.98	1	1	.55	15.12	8.36
	1-19	Epidemic diseases	181	27.14	....	2	.30	....	....	......	6.67	1.00	14	7.74	....	....	......	....	....	......	.31	.17
	20-59	Other general diseases	717	107.53	1	34	5.10	2	6	.90	38.50	5.77	288	159.30	....	9	4.98	1	1	.55	14.42	8.19
		Diseases of the nervous system and organs of special sense	128	19.20	....	38	5.70	....	1	.15	6.55	.99	35	19.36	....	8	4.42	....	....	......	1.75	.97
	60-74	Of the nervous system	65	9.75	....	38	5.70	....	1	.15	4.88	.73	18	9.96	....	8	4.42	....	....	......	1.28	.70
	75	Of the eye and its annexa	43	6.45	....	....	......	....	....	......	1.00	.15	16	8.85	....	....	......	....	....	......	.45	.25
	76	Of the ear and its annexa	20	3.00	....	....	......	....	....	......	.67	.11	1	.55	....	....	......	....	....	......	.01	.02
	77-85	Diseases of the circulatory system	120	18.00	....	2	.30	....	....	......	5.58	.84	36	19.91	....	1	.55	....	....	......	1.02	.57
	86-98	Diseases of the respiratory system	220	33.00	....	3	.45	1	1	.15	6.63	1.00	51	28.21	....	....	......	....	....	......	1.00	.55
	99-118	Diseases of the digestive system	628	94.20	....	1	.15	2	2	.30	18.13	2.71	178	98.45	....	....	......	1	1	.55	2.90	1.60
	119-127	Diseases of the genito-urinary system	105	15.75	....	2	.30	1	1	.15	2.76	.41	46	25.44	....	1	.55	....	1	.55	1.63	.90
	142-145	Diseases of the skin and cellular tissue	415	62.25	....	1	.15	....	....	......	12.05	1.81	51	28.21	....	....	......	....	....	......	1.22	.68
	146-149	Diseases of the organs of locomotion	108	16.20	....	9	1.35	....	....	......	5.38	.81	46	25.44	....	5	2.77	....	....	......	1.33	.73
	150	Malformations	27	5.04	....	....	......	....	....	......	.50	.08	18	9.96	....	....	......	....	....	......	.28	.15
	189	Ill-defined diseases	17	2.55	....	....	......	....	....	......	.53	.08	8	4.42	....	....	......	....	....	......	.22	.12
		Total for disease	2,666	399.82	1	92	13.80	6	11	1.65	103.29	15.49	771	426.44	....	24	13.27	2	3	1.66	26.46	11.63
	155-186	External causes	762	114.28	....	12	1.80	22	22	3.30	27.78	4.17	162	89.60	....	4	2.21	3	5	2.77	5.36	2.97
		Total for diseases and external causes.	3,428	514.10	1	101	15.60	28	33	4.95	131.07	19.66	933	516.04	....	28	15.49	5	8	4.42	31.82	17.60

[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from the United States.

[3] Noneffectiveness for individual external causes not tabulated.

TABLE NO. 75.—*Admissions to sick report, discharges, deaths, and noneffectiveness, w*
ports, for officers and native troops serving in Porto Ri

Serial Nos.	International classification.	Causes of admission to sick report.	Army transports, officers and enlisted men.							
		Mean strength	880							
			Admissions.		Discharges.		Deaths.			Non-effectiv
			Number.	Ratio.	Number.	Ratio.	Number.		Ratio.	Number.
							(1)	(2)		
7–11	4	Malaria	18	20.45						0.62
7		Æstivo-autumnal fever	2	2.27						.11
8		Malarial cachexia								.12
9		Quartan malarial fever								
10		Tertian malarial fever	15	17.05						.39
11		Undetermined malarial fever	1	1.14						.00
12	5	Smallpox and varioloid	1	1.14						.02
13	5b	Vaccinia	2	4.55						.05
14	6	Measles	16	18.18						.40
17	9	Diphtheria	1	1.14						.01
18	10	Influenza	11	12.50						.16
19	12	Asiatic cholera								
21–23	14	Dysentery	1	1.14						.91
21		Bacillary								
22		Entamœbic	1	1.14						.91
23		Unclassified								
27	18	Erysipelas								
29	19b	Dengue								
34	19g	Mumps	22	25.00						.51
37	20	Purulent infection and septicemia								
41	24	Tetanus								
48	27	Beriberi								
49–57	28–34	Tuberculosis, all	2	2.27			1	1	1.14	5.44
49–51	28	Tuberculosis of lungs								5.02
52	29	Miliary tuberculosis, acute					1	1	1.14	.06
53–57	30–34	Tuberculosis of other organs								.36
59–74	37–38	Venereal diseases, all	170	193.18						3.02
59–64	37	Syphilis	10	11.36						1.44
65–67	38a	Soft chancre	57	64.77						.31
68–74	38b	Gonococcus infection	103	117.05						1.27
75–79	39–45	Cancer and other malignant tumors						1	1.14	.28
80	46	Benign tumors								
81–85	47–48	Rheumatism, articular, all	2	2.27						.10
81–82	47	Acute articular rheumatism	2	2.27						.05
83–85	48	Chronic articular rheumatism								.05
87–88	50	Diabetes	1	1.14						
89	51	Exophthalmic goitre								.33
97–100	56	Alcoholism and results	3	3.41						.72
101–102	57–58	Chronic occupational poisoning								.03
103–104	59	Other chronic poisoning, including drug habit								.02
108	61a	Epidemic cerebrospinal meningitis								
109	62	Locomotor ataxia								.12
110–115	63	Other diseases of spinal cord								.09
116	64	Cerebral hemorrhage, apoplexy								
117–119	66	Paralysis without specified cause	1	1.14						.06
120–126	67–68	Mental alienation	9	10.23						6.16
127	69	Epilepsy	2	2.27						.67
129–133	73	Neuralgia and neuritis	4	4.55						.53
138–141	75a	Follicular conjunctivitis	3	3.41						.13
142	75b	Trachoma								.03
166	77	Pericarditis								
167	78	Acute endocarditis								
169–174	79	Organic heart disease	1	1.14						1.04
176–177½	81	Diseases of the arteries, atheroma, aneurism, etc								
178–179	82	Embolism and thrombosis								
181	83b	Hemorrhoids								.03
183	83d	Varicose veins								.10
184	83e	Variocele								
185–187	84	Diseases of the lymphatic system	2	2.27						.10
193–199	86	Diseases of the nasal fossae	3	3.41						.10
200–202	87	Diseases of the larynx	1	1.14						.07

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[1] Number of discharges and deaths which actually occurred.

os per 1,000 of mean strength, for officers and enlisted men serving on Army trans-
native troops in Philippine Islands, year 1916.

Porto Rico, officers and enlisted native troops.								Philippine Islands, native troops.							
991								5,579							
dmissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Dis-charges.		Deaths.		Non-effective.	
	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
69	69.63	...	...	...	...	1.59	1.60	242	43.38	...	...	...	...	6.34	1.14
32	32.29	...	...	...	...	.92	.92	74	13.26	...	...	...	...	2.47	.44
...	...	...	...	...	...	...	...	2	.36	...	...	...	...	.09	.02
...	...	...	...	...	...	...	...	3	.54	...	...	...	...	.07	.01
37	37.34	...	...	...	...	.67	.68	154	27.60	...	...	...	...	3.53	.63
...	...	...	...	...	...	...	...	9	1.61	...	...	...	...	.19	.03
...	...	...	...	...	...	...	...	9	1.61	...	...	1	.18	.64	.12
1	1.01	...	...	...	...	.21	.21	8	1.43	...	...	...	...	.12	.02
...	...	...	...	...	...	...	...	5	.90	...	...	...	...	.35	.06
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
248	250.25	...	...	...	...	3.37	3.40	21	3.76	...	...	...	...	.31	.06
...	...	...	...	...	...	...	...	2	.36	...	...	1	.18	.13	.02
7	7.06	...	...	...	...	.18	.18	27	4.84	...	...	...	...	1.25	.22
3	3.03	...	...	...	...	.08	.08	13	2.33	...	...	...	...	.78	.14
...	...	...	...	...	...	...	...	10	1.79	...	...	...	...	.41	.07
4	4.04	...	...	...	...	.10	.10	4	.72	...	...	...	...	.06	.01
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	.01	.00
22	22.20	...	...	...	...	.63	.64	62	11.12	...	...	...	...	1.45	.26
...	...	...	...	...	...	...	...	29	5.20	...	...	...	...	1.21	.22
...	...	...	...	...	...	...	...	2	.36	...	...	...	...	.34	.06
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	.16	.03
...	...	...	...	...	...	...	...	2	.36	...	...	...	...	.40	.07
5	5.05	5	5.24	...	...	.37	.37	17	3.05	16	2.87	1	.18	1.99	.36
4	4.04	3	3.14	...	...	2.48	2.51	17	3.05	16	2.87	1	.18	1.99	.36
...	...	2	2.09	...	...	...	...	...	...	...	...	...	...	...	...
1	1.01	...	...	...	...	.16	.16	...	...	...	...	...	...	...	...
80	80.73	1	1.05	...	...	4.79	4.84	167	29.94	3	.54	1	.18	9.98	1.79
32	32.29	...	...	...	...	2.48	2.51	27	4.84	1	.18	...	...	1.95	.35
24	24.22	...	...	...	...	1.46	1.27	13	2.33	...	...	...	...	.42	.08
24	24.22	...	...	...	...	1.05	1.06	127	22.76	2	.36	...	...	7.61	1.36
...	...	...	...	...	...	...	...	4	.72	...	...	3	.54	.59	.11
1	1.01	...	...	...	...	.02	.02	10	1.79	...	...	...	...	.91	.16
4	4.04	...	...	...	...	.37	.37	19	3.41	...	...	...	...	.89	.16
1	1.01	...	...	...	...	.01	.01	19	3.41	...	...	...	...	.89	.16
3	3.03	1	1.05	...	...	.36	.36	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1.01	...	...	...	...	.00	.00	6	1.08	...	...	...	...	.02	.00
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	3	.54	...	...	2	.36	.17	.03
2	2.02	1	1.05	...	...	.20	.20	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	.43	.08
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1.01	1	1.05	...	...	.19	.19	5	.90	4	.72	...	...	.67	.12
3	3.03	...	...	...	...	.03	.03	1	.18	...	...	...	...	.02	.00
6	6.05	...	...	...	...	.14	.14	12	2.15	...	...	...	...	.14	.02
4	4.04	...	...	...	...	.08	.08	73	13.08	...	...	...	...	1.29	.23
...	...	...	...	...	...	...	...	4	.72	...	...	...	...	.12	.02
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1.01	...	...	...	...	.10	.10	2	.36	1	.18	1	.18	.19	.03
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	.05	.01
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	2.02	...	...	...	...	.02	.02	7	1.25	...	...	...	...	.21	.04
...	...	...	...	...	...	...	...	2	.36	...	...	...	...	.08	.01
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	.02	...
18	18.16	...	...	...	...	.82	.83	17	3.05	...	...	...	...	.95	.17
30	30.27	...	...	...	...	.59	.60	50	8.96	...	...	...	...	.54	.10
3	3.03	...	...	...	...	.03	.03	2	.36	...	...	...	...	.06	.01

Number of discharges and deaths, including those of cases invalided home and deducted from the
ted States.

TABLE No. 75.—*Admissions to sick report, discharges, deaths, and noneffectiveness, w*
ports, for officers and native troops serving in Porto Rico,

Serial Nos.	International classification.		Army transports, officers and enlisted men.							
		Mean strength	880							
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.			Noneffective
			Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.
203–204	88	Diseases of the thyroid body								0.05
205–206	89–90	Bronchitis	46	52.27						1.94
207	91	Broncho-pneumonia								
208	92	Pneumonia	6	6.82						.28
209–215	93	Pleurisy	8	9.09						1.23
216–217	94	Pulmonary congestion and pulmonary apoplexy								
219	96	Asthma								.30
221	98a	Haemoptysis								
222	98b	Hay fever								
224–227	99a	Diseases of the teeth and gums	4	4.55						.10
228–231	99b	Other diseases of the mouth and annexa								
232–236	100	Diseases of the pharynx	66	75.00						.75
238	102	Ulcer of the stomach								.02
239–244	103	Other diseases of stomach (cancer excepted)	7	7.95						.30
245–253	105	Diarrhea and enteritis	19	21.59						.55
254	106	Ankylostomiasis								
255–259	107	Intestinal parasites								
260	108	Appendicitis	4	4.55						.18
261–263	109	Hernia	1	1.14						.14
264–267	110a	Diseases of the anus and fæcal fistula								
268–272	110b	Other diseases of the intestines	19	21.59						.71
275	113	Cirrhosis of liver								
276	114	Biliary calculi								
277–281	115	Other diseases of liver and gall bladder	2	2.27						.14
283–284	117	Simple peritonitis	1	1.14						.01
288	119	Acute nephritis	2	2.27						.04
289–291	120	Bright's disease								.92
293–299	122	Other diseases of the kidney and annexa								.15
303–306	124	Diseases of the bladder								.47
304	124b	Enuresis								.38
307–309	125	Diseases of the urethra, urninary abscess, etc	2	2.27						.02
313–319	127	Diseases of the male genital organs (non venereal)	3	3.41						.10
322–323	143	Furuncle and carbuncle	7	7.95						.08
324–325	144	Acute abscess and cellulitis	4	4.55						.17
352–357	146	Diseases of the bones	2	2.27						.26
358–360	147	Diseases of the joints	1	1.14						.89
367	147g	Flat foot								2.74
372	150	Congenital malformations								.21
373–374	154	Senility								.02
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	10	11.36						.09
379	189Ba	Under observation, undiagnosed and unknown								.23
380	189Bb	Malingering	2	2.27						.02

[1] Number of discharges and deaths which actually occurred.

tios per 1,000 of mean strength, for officers and enlisted men serving on Army trans-
itive troops in Philippine Islands, year 1916—Continued.

Porto Rico, officers and enlisted native troops.								Philippine Islands, native troops.							
991								5,579							
Admissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Dis-charges.		Deaths.		Non-effective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
9	9.08	....	....	....	....	0.29	0.30	187	33.52	....	....	....	....	4.10	0.74
....	....	....	....	....	....	....	....	2	.36	....	....	1	0.18	.11	.02
1	1.01	....	....	....	....	.08	.08	15	2.69	....	....	1	.18	.99	.18
1	1.01	....	....	....	....	.04	.04	9	1.61	....	....	....	....	.61	.11
....	....	....	....	....	....	....	....	7	1.25	....	....	2	.36	.14	.03
5	5.05	1	1.05	....	....	.16	.16	8	1.43	....	....	....	....	.63	.11
....	....	....	....	....	....	....	....	1	.18	....	....	....	....	.06	.01
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
8	8.07	....	....	....	....	.11	.11	17	3.05	....	....	....	....	.28	.05
....	....	....	....	....	....	....	....	4	.72	....	....	....	....	.05	.01
24	24.22	....	....	....	....	.30	.30	59	10.58	....	....	....	....	.87	.16
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
29	29.26	....	....	....	....	.32	.33	55	9.86	....	....	....	....	.59	.11
50	50.45	....	....	1	1.01	.82	.83	167	29.93	....	....	....	....	1.85	.33
5	5.05	....	....	....	....	.17	.17	16	2.87	....	....	....	....	.35	.06
4	4.04	....	....	....	....	.11	.11	8	1.43	....	....	....	....	.13	.02
....	....	....	....	....	....	....	....	12	2.15	....	....	....	....	.91	.16
....	....	....	....	....	....	....	....	3	.54	1	0.18	....	....	.28	.05
4	4.04	....	....	....	....	.16	.16	2	.36	....	....	....	....	.07	.01
20	20.18	....	....	....	....	.15	.15	284	50.91	....	....	....	....	2.67	.48
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4	4.04	....	....	....	....	.12	.12	7	1.25	1	.18	....	....	.31	.06
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	4	.72	....	....	1	.18	.14	.02
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	1	.18	....	....	....	....	.24	.04
1	1.01	....	....	....	....	.03	.03	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1	1.01	....	....	....	....	.15	.15	2	.36	....	....	....	....	.04	.01
14	14.13	....	....	....	....	.36	.36	21	3.76	....	....	....	....	.64	.11
34	34.31	....	....	1	1.01	.57	.58	105	18.82	....	....	....	....	2.30	.42
37	37.33	....	....	....	....	.64	.65	127	22.76	....	....	....	....	3.56	.64
3	3.03	....	....	....	....	.13	.13	3	.54	....	....	....	....	.51	.09
2	2.02	....	....	....	....	.05	.06	10	1.79	1	.18	....	....	1.05	.19
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1	1.01	....	....	....	....	.04	.04	4	.72	....	....	....	....	.25	.05
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
38	38.65	....	....	....	....	.91	.92	32	5.74	....	....	....	....	1.05	.19
2	2.02	....	....	....	....	.03	.03	4	.72	....	....	....	....	.42	.07
2	2.02	....	....	....	....	.02	.02	....	....	....	....	....	....	....	....

[3] Number of discharges and deaths, including those of cases invalided home and deducted from the
nited States.

TABLE No. 75.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit ports, for officers and native troops serving in Porto Rico, fo*

Serial Nos.	International classification.		Army transports, officers and enlisted men.								
		Mean strength	880								
		Causes of admission to sick report.	Admissions.		Discharges.		Deaths.			Noneffective.	
			Number.	Ratio.	Number.	Ratio.	Number. (1)	Number. (2)	Ratio.	Number.	Ratio.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[3]									
426–434	155–163	Suicides, all					1	1	1.14		
435	164	Poisoning by food									
436	165a	Venomous bites and stings									
437	165b	Other poisoning (deleterious gases excepted)									
438	166	Conflagration									
439	167	Burns (conflagrations excepted)	2	2.27							
443	170	Traumatism by firearms (other than specified)									
445	171	Traumatism by cutting or piercing instruments	1	1.14							
446	172	Traumatism by fall	9	10.23							
448	174	Traumatism by machines									
449	175	Traumatism by other crushing	4	4.55							
450	176	Injuries by animals	1	1.14							
451	177	Starvation									
453	179	Effects of heat									
455	181	Effects of electricity									
456–458	182–4	Homicides, all									
460	186	Other external violence	10	11.36							
		DISEASES AND INJURIES GROUPED.									
		General diseases	252	286.36			2	2	2.27	12.66	14.
	1–19	Epidemic diseases	74	84.09						2.69	3.
	20–59	Other general diseases	178	202.27			2	2	2.27	9.97	11.
		Diseases of the nervous system and organs of special sense	26	29.55						10.09	11.
	60–74	Of the nervous system	16	18.18						8.99	10.
	75	Of the eye and its annexa	6	6.82						.76	.
	76	Of the ear and its annexa	4	4.55						.34	.
	77–85	Diseases of the circulatory system	4	4.55						1.33	1.
	86–98	Diseases of the respiratory system	64	72.73						3.95	4.
	99–118	Diseases of the digestive system	123	139.77						2.99	3.
	119–127	Diseases of the genito-urinary system	7	7.95						1.72	1.
	142–145	Diseases of the skin and cellular tissue	26	29.55						1.30	1.
	146–149	Diseases of the organs of locomotion	8	9.09						4.58	5.
	150	Malformations, etc	1	1.14						.21	.
	189	Ill-defined diseases	52	59.09						.78	.
		Total for disease	563	639.77			2	2	2.27	39.64	45.
	155–186	External causes	28	31.82			1	1	1.14	3.16	3.
		Total for disease and external causes	591	671.59			3	3	3.41	42.8	48.

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[1] Number of discharges and deaths which actually occurred.

[2] Number of discharges and deaths, including those of cases invalided home and deducted from t United States.

tios per 1,000 of mean strength, for officers and enlisted men serving on Army trans-
tive troops in Philippine Islands, year 1916—Continued.

Porto Rico, officers and enlisted native troops.								Philippine Islands, native troops.							
991								5,579							
dmissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Dis-charges.		Deaths.		Non-effective.	
Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
...	...	...	...	1	1.01	...	...	...	...	...	...	1	0.18	...	...
...	...	...	...	...	...	...	...	3	0.54	...	...	...	...	...	...
...	...	...	...	1	1.01	...	...	8	1.43	...	...	...	...	...	...
...	...	...	...	1	1.01	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	9	1.61	...	...	...	...	...	...
...	...	...	...	...	...	...	...	12	4.15	...	...	...	...	...	...
10	10.09	...	...	...	...	...	...	84	15.06	...	...	...	...	...	...
23	23.21	...	...	...	...	...	...	80	14.34	3	0.54	...	...	...	...
1	1.01	...	...	...	...	...	...	3	.54	...	...	...	...	...	...
3	3.03	...	...	...	...	...	...	23	4.12	...	...	...	...	...	...
...	...	...	...	...	...	...	...	5	.90	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	...	...
1	1.01	...	...	...	...	...	...	14	2.51	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	.18	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	.18	...	...	1	.18	...	...
39	39.35	...	...	...	...	...	...	172	30.83	...	...	...	...	...	...
461	465.19	8	8.38	...	...	11.87	11.98	669	119.91	23	4.12	6	1.08	29.92	5.36
370	373.36	1	1.05	...	...	6.32	6.37	439	78.69	4	.72	2	.36	14.01	2.51
91	91.83	7	7.23	...	...	5.55	5.60	230	41.23	19	3.41	4	.72	15.91	2.85
33	33.31	2	2.09	...	...	.89	.89	145	25.99	8	1.44	2	.36	4.26	.76
15	15.14	2	2.09	...	...	.58	.58	26	4.66	4	.72	2	.36	1.52	.27
15	15.14	...	...	...	...	.25	.26	96	17.21	2	.36	...	...	2.06	.37
3	3.03	...	...	...	...	.05	.05	23	4.12	2	.36	...	...	.67	,12
28	28.25	1	1.05	1	1.01	1.00	1.01	35	6.27	1	.18	1	.18	1.55	.28
50	50.45	1	1.05	...	...	1.19	1.20	283	50.73	...	...	3	.54	7.27	1.30
149	150.35	...	...	1	1.01	2.36	2.38	634	113.64	2	.36	...	...	8.37	1.50
19	19.17	...	...	...	...	.58	.59	28	5.02	...	...	1	.18	1.05	.19
163	114.03	...	...	1	1.01	2.40	2.42	385	69.01	1	.18	...	...	12.55	2.25
33	33.30	...	...	...	...	.98	.99	48	8.60	1	.18	...	...	2.64	1.47
1	1.01	...	...	...	...	.04	.04	4	.72	...	...	...	...	.25	.05
47	47.43	...	...	...	...	1.02	.03	40	7.17	...	...	...	...	1.51	.27
934	942.48	12	12.57	3	.03	22.33	22.53	2,271	407.06	36	6.45	13	2.33	69.37	12.43
79	79.72	...	...	1	1.01	2.36	2.38	419	75.10	3	.54	2	.36	11.96	2.14
1,013	1,022.20	12	12.57	4	.04	24.69	24.91	2,690	482.17	39	6.99	15	2.69	81.34	14.58

[a] Noneffectiveness for individual external causes not tabulated.

TABE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit stations placed in comparison with the same dat*

Serial No.	International classification.	Causes of admission to sick report.	United States.				Mexico (punitive expedition).			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
1	1	Typhoid fever	0.21	......	0.02	0.04	0.75	......	......	0.
2	1a	Paratyphoid fever	.31	......	......	.05	11.18	......	......	.
7-11	4	Malaria	12.52	......	.02	.33	30.94	......	......	.
7	......	Æstivo-autumnal fever	.90	......	.02	.03	9.82	......	......	.
8	......	Malarial cachexia	.02	......	......	.01	......	......	......	......
9	......	Quartan malarial fever	.18	......	......	.00	......	......	......	......
10	......	Tertian malarial fever	10.49	......	......	.27	9.07	......	......	.
11	......	Undetermined malarial fever	.94	......	......	.02	12.05	......	......	.
12	5	Smallpox and varioloid	......	......	......	......	......	......	......	......
13	5b	Vaccinia	8.47	......	......	.10	1.12	......	......	.
14	6	Measles	20.28	0.03	.15	.86	.99	......	......	.
15	7	Scarlet fever	.59	......	.03	.05	.50	......	......	.
17	9	Diphtheria	.50	......	......	.03	......	......	......	......
18	10	Influenza	38.15	......	.02	.55	2.48	......	......	.
19	12	Asiatic cholera	......	......	......	......	......	......	......	......
21-23	14	Dysentery	3.97	.08	.12	.43	23.61	0.25	0.25	.
21	......	Bacillary	.52	......	......	.02	1.24	......	.12	.
22	......	Entamobic	2.08	.08	.10	.35	15.03	.25	.12	.
23	......	Unclassified	1.37	......	.02	.06	7.33	......	......	.
27	18	Erysipelas	.70	......	.02	.03	.25	......	......	.
29	19b	Dengue	10.50	......	......	.14	......	......	......	......
31	19d	German measles	.18	......	......	......	......	......	......	......
34	19g	Mumps	3.27	......	......	.15	1.62	......	......	.
37	20	Purulent infection and septicemia	.11	......	.08	.00	.12	......	.37	.
42-46	25	Mycoses	.10	......	......	.01	......	......	......	......
49-57	28-34	Tuberculosis, all	3.53	1.94	.28	2.64	1.99	2.11	.12	.
49-51	28	Tuberculosis of lungs	3.22	1.86	.24	2.54	1.49	2.11	.12	.
52	29	Miliary tuberculosis, acute	......	.02	......	.00	......	......	......	......
53-57	30-34	Tuberculosis of other organs	.32	.09	.03	.10	.49	......	......	.
58	36	Scoliosis (rickets)	.05	.02	......	.01	.12	......	......	.
59-74	37-38	Venereal diseases, all	91.23	1.63	.15	5.58	66.84	2.73	.25	2.
59-64	37	Syphilis	18.36	.65	.13	1.88	21.62	1.49	.25	.
65-67	38a	Soft chancre	18.02	......	......	1.06	12.67	......	......	.
68-74	38b	Gonococcus infection	54.84	.98	.02	2.65	32.55	1.24	......	1.
75-79	39-45	Cancer and other malignant tumors.	.28	.05	.13	.08	.37	.12	......	.
80	46	Benign tumors	1.48	......	......	.06	.87	.25	......	.
81-85	47-48	Rheumatism, articular, all	6.74	.18	.02	.51	7.46	.49	......	.
81-82	47	Acute articular rheumatism	4.98	.03	.02	.36	5.84	.12	......	.
83-85	48	Chronic articular rheumatism	1.76	.15	......	.15	1.62	.37	......	.
87-88	50	Diabetes	.18	.11	.02	.04	......	.25	......	......
89	51	Exophthalmic goiter	.26	.15	......	.07	.37	.25	......	.
97-100	56	Alcoholism and results	12.77	.15	.03	.22	.87	.12	......	.
101-102	57-58	Chronic occupational poisoning	.03	.02	......	.00	......	......	......	......
103-104	59	Other chronic poisoning, including drug habit	.31	.02	......	.02	.37	.12	......	.
105-106	60	Encephalitis	......	......	......	......	.12	......	.12	.
107	61	Simple meningitis	.02	.02	......	.00	......	......	......	......
108	61a	Epidemic cerebrospinal meningitis	.29	.02	.15	.02	......	......	......	......
109	62	Locomotor ataxia	.20	.08	.02	.06	.12	......	......	.
110-115	63	Other diseases of spinal cord	.08	.02	......	.01	......	......	......	......
116	64	Cerebral hemorrhage, apoplexy	.03	......	.05	.00	.12	......	......	......
117-119	66	Paralysis without specified cause	.28	.02	......	.04	......	......	......	......
120-126	67-68	Mental alienation	3.73	2.65	.03	1.00	1.12	1.62	......	.
127	69	Epilepsy	1.73	.91	......	.16	1.24	.62	......	.
129-133	73	Neuralgia and neuritis	6.37	.31	.02	.39	5.96	.12	......	.
138-141	75a	Follicular conjunctivitis	5.34	.03	......	.12	5.47	......	......	.
142	75b	Trachoma	.18	.03	......	.01	......	......	......	......
166	77	Pericarditis	.08	.02	.02	.01	.12	......	......	.
167	78	Acute endocarditis	.03	.02	......	.01	.12	......	.12	.
169-174	79	Organic heart disease	1.99	.65	.24	.24	1.12	.50	......	.
175	80	Angina pectoris	.11	.02	.02	.01	......	......	......	......
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc	.24	.03	.07	.03	.12	.37	......	
178-179	82	Embolism and thrombosis	.05	......	.02	.01	.12	......	......	
181	83b	Hemorrhoids	6.72	.02	......	.26	11.31	......	......	
183	83d	Varicose veins	.81	.07	......	.07	1.12	.37	......	
184	83e	Variocele	2.17	.02	......	.11	1.37	......	......	
185-187	84	Diseases of the lymphatic system	6.92	......	......	.45	7.33	......	......	
193-199	86	Diseases of the nasal fossæ	15.50	.03	......	.24	4.97	......	......	
200-202	87	Diseases of the larynx	2.54	.02	.02	.05	.62	......	......	

atios per 1,000 of mean strength, for American troops (enlisted men) on duty at home or those serving at distant stations, year 1916.

Philippine Islands.				Hawaii.				Alaska.				Panama.			
Admissions.	Discharges.	Deaths	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
......	......	......	......	0.12	......	......	0.06	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
62.95	......	......	1.65	2.12	......	......	.06	......	......	......	......	16.60	......	......	2.05
17.36	......	......	.54	......	......	......	......	......	......	......	......	28.48	......	......	1.02
.17	......	......	.04	......	......	......	......	......	......	......	......	.14	......	......	.00
.35	......	......	.01	......	......	......	......	......	......	......	......	.28	......	......	.01
43.52	......	......	1.04	2.12	......	......	.06	......	......	......	......	32.46	......	......	.84
1.55	......	......	.03	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.86	......	......	.01	.12	......	......	.00	1.30	......	......	0.00	.43	......	......	.00
1.12	......	......	.08	2.71	......	......	.15	......	......	......	......	1.14	......	......	.05
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.26	......	......	.07	.12	......	......	.00	......	......	......	......	.14	......	......	.00
10.45	......	......	.20	12.39	......	......	.21	5.19	......	......	.07	38.59	......	......	.66
.43	......	......	.04	......	......	......	......	......	......	......	......	......	......	......	......
12.00	......	0.09	.79	3.89	......	......	.28	......	......	......	......	1.28	......	......	.09
.52	......	......	.02	.35	......	......	.02	......	......	......	......	.14	......	......	.00
10.62	......	.09	.75	2.48	0.24	......	.22	......	......	......	......	.43	......	......	.05
.86	......	......	.03	1.06	......	......	.04	......	......	......	......	.71	......	......	.04
.26	......	......	.01	......	......	......	......	......	......	......	......	......	......	......	......
12.26	......	......	.20	......	......	......	......	......	......	......	......	16.80	......	......	.41
.17	......	......	.01	......	......	......	......	......	......	......	......	......	......	......	......
2.85	......	......	.15	1.06	......	......	.05	......	......	......	......	.71	......	......	.02
.17	......	......	.02	.12	......	0.12	.00	1.30	......	......	.00	......	......	......	......
......	......	......	......	.12	......	......	.00	......	......	......	......	......	......	......	......
4.40	2.25	.95	.37	3.19	2.95	.71	.29	1.30	1.34	......	.02	4.13	3.98	0.14	.38
4.15	2.16	.86	.33	2.71	2.71	.59	.18	1.30	1.34	......	.02	3.70	3.54	.14	.29
.09	......	.09	.01	.12	......	.12	.02	......	......	......	......	.14	.15	......	.03
.17	......	.09	.03	.36	.24	......	.09	......	......	......	......	.28	.30	......	.05
......	......	......	......	......	......	......	......	......	......	......	......	.28	.15	......	.02
163.30	1.21	.09	7.77	98.16	1.42	......	5.61	19.48	1.34	......	.70	115.62	1.33	......	5.25
35.84	.60	.09	2.19	21.24	1.06	......	1.57	2.60	......	......	.12	18.94	.74	......	1.43
35.32	......	......	1.22	28.67	......	......	1.87	1.30	......	......	......	36.02	......	......	1.42
92.14	.60	......	4.36	48.26	.35	......	2.17	15.58	1.34	......	.57	60.66	.59	......	2.40
.52	.26	.26	.09	.47	......	......	.03	......	......	......	......	.28	......	.28	.00
1.55	......	......	.08	1.42	......	......	.03	2.60	......	......	.01	.85	......	......	.01
5.89	.17	......	.20	......	......	......	.03	2.60	......	......	.03	3.84	......	......	.09
2.42	......	......	.11	.94	......	......	.03	1.30	......	......	.01	3.27	......	......	.08
1.47	.17	......	.09	.24	......	......	.00	.30	......	......	.02	.57	......	......	.01
.17	......	.09	.00	......	......	......	......	......	......	......	......	.28	......	.14	.00
.17	.26	......	.03	.35	.35	......	.08	2.60	1.34	......	......	.14	.44	......	.02
15.72	.09	......	.25	11.33	.12	......	.18	9.09	......	......	.10	12.67	......	......	.19
.09	......	......	.00	......	......	......	......	......	......	......	......	.14	.15	......	.04
.26	......	......	.00	1.88	.12	......	.02	......	......	......	......	.28	......	......	.00
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	.12	.12	......	.01	......	......	......	......	.14	......	......	.01
.17	......	......	.00	......	......	......	......	......	......	......	......	.14	......	.14	.07
.09	......	......	.02	......	.12	......	......	......	......	......	......	......	......	......	......
.09	......	.09	.00	......	......	......	......	......	......	......	......	......	......	......	......
.17	......	......	.01	.71	.24	......	.02	......	......	......	......	.85	.14	......	.04
4.32	3.28	.09	.45	4.83	3.78	.12	.45	2.60	5.37	......	.12	3.56	2.95	......	.73
.78	.35	......	.05	.59	.35	......	.03	......	......	......	......	1.71	1.03	......	.06
5.53	.17	......	.26	2.24	.47	......	.17	2.60	......	......	.03	4.56	......	......	.14
4.32	......	......	.07	3.54	......	......	.09	1.30	......	......	.01	4.98	.15	......	.18
.09	......	......	.01	......	......	......	......	......	......	......	......	.14	.15	......	.01
.09	......	......	.01	......	......	......	......	......	......	......	......	......	......	......	......
.26	......	.09	.02	......	......	......	......	......	......	......	......	......	......	......	......
2.07	.43	.09	.19	.59	.24	......	.06	1.30	......	......	.02	.57	.59	......	.10
......	......	......	......	.12	......	......	.00	......	......	......	......	.14	......	......	.00
.17	......	......	.01	.12	......	......	.03	......	......	......	......	......	......	......	......
.09	......	......	.00	......	......	......	......	......	......	......	......	......	......	......	......
7.77	......	......	.23	8.85	......	......	.21	11.69	......	......	.37	.43	......	......	.28
1.12	.09	......	.10	.47	.12	......	.04	......	......	......	......	1.85	.44	......	.19
3.37	......	......	.16	2.60	......	......	.15	......	......	......	......	2.85	......	......	.19
8.89	......	......	.37	4.25	......	......	.23	......	......	......	......	20.22	......	......	1.30
15.37	......	......	.21	7.20	......	......	.17	1.30	......	......	.03	18.37	......	......	.30
.86	......	......	.01	.12	......	......	.00	1.30	......	......	.01	.28	......	......	.00

TABLE NO. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with*
stations placed in comparison with the same data for

Serial No.	International classification.	Causes of admission to sick report.	United States.				Mexico (punitive expedition).			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
203–204	88	Dyseases of the thyroid body	0.26	0.08		0.04	0.25	0.12		0.00
205–206	89–90	Bronchitis	36.89	.08		.67	20.13			.26
207	91	Broncho-pneumonia	.60		0.11	.05	.37			.01
208	92	Pneumonia	2.59	.03	.31	.21	2.36		0.37	.09
209–215	93	Pleurisy	3.16	.03		.24	3.73	.12		.05
216–217	94	Pulmonary congestion and pulmonary apoplexy	.03		.03	.00				
219	96	Asthma	1.14	.16		.08	.75	.12		.01
220	97	Pulmonary emphysema	.03	.02		.00				
221	98a	Hemoptysis	.08			.00				
222	98b	Hay fever	.05			.00	.12			.00
224–227	99a	Diseases of the teeth and gums	5.50			.12	22.86			.18
228–231	99b	Other diseases of the mouth and annexa	.99			.03	.37			.01
232–236	100	Diseases of the pharynx	65.77			.96	51.93			.72
238	102	Ulcer of stomach	.31	.03	.02	.04	.25	.12		.00
239–244	103	Other diseases of stomach (cancer excepted)	11.41	.15		.29	13.91			.21
245–253	105	Diarrhea and enteritis	38.23	.05	.02	.51	190.33		.12	2.15
254	106	Ankylostomiasis	.37			.02				
255–259	107	Intestinal parasites	1.25			.02	.87			.01
260	108	Appendicitis	9.61	.05	.18	.73	8.20			.22
261–263	109	Hernia	5.10	.48	.03	.60	6.21	.75		.10
264–267	110a	Diseases of the anus and fecal fistula	.57			.05	1.12			.03
268–272	110b	Other diseases of the intestines	26.25	.18		.41	15.65	.25		.13
275	113	Cirrhosis of liver	.13	.02	.02	.01	.25		.12	.00
276	114	Biliary calculi	.20			.03	.12			.00
277–281	115	Other diseases of liver and gall bladder	3.94	.03	.05	.18	2.24			.05
283–284	117	Simple peritonitis	.05		.05	.01				
288	119	Acute nephritis	.37		.08	.02	.50			.01
289–291	120	Bright's disease	.60	.15	.13	.14	.50	.24		.01
293–299	122	Other diseases of the kidney and annexa	.70	.10	.02	.10	.50			.00
303–306	124	Diseases of the bladder	2.77	.36		.12	1.24	.25		.04
304	124b	Enuresis								
307–309	125	Diseases of the urethra, urinary abscess, etc	1.47			.04	.99			.01
310–312	126	Diseases of the prostate	.13			.01	.12			.00
313–319	127	Diseases of the male genital organs (nonvenereal)	4.49	.02		.17	4.72	.12		.11
322–323	143	Furuncle and carbuncle	15.05			.27	16.77			.24
324–325	144	Acute abscess and cellulitis	14.66			.41	13.54			.28
352–357	146	Diseases of the bones	2.21	.10		.25	3.48	.12		.09
358–360	147	Diseases of the joints	4.28	.34		.40	5.84	.50		.13
367	147g	Flat foot								
372	150	Congenital malformations	3.01	.03		.12	.87			.02
373–374	154	Senility	.03			.00				
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	4.33			.08	24.72			.81
379	189Ba	Under observation, undiagnosed and unknown	.86	.02	.07	.05	2.36		.12	.0
380	189Bb	Malingering	.46			.03	.37			.0
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.[1]								
426–434	155–163	Suicides, all	.08		.57				.50	
435	164	Poisoning by food	.72				6.83			
436	165a	Venomous bites and stings	.73				.75			
437	165b	Other poisoning (deleterious gases excepted)								
438	166	Conflagration								
439	167	Burns (conflagrations excepted)	3.71				3.11			
440	168	Absorption of deleterious gases			.02		.12		.12	
441	168a	Suffocation, strangulation	.02		.02					
442	169	Drowning, accidental			.34				.25	
443	170	Traumatism, by firearms (other than specified)	4.23	.57	.29		8.70	1.24	.37	
444	170a	Shot by sentry or guard	.05	.02	.05		.12	.12		

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[1] Noneffectiveness for individual external causes not tabulated.

tios per 1,000 of mean strength, for American troops (enlisted men) on duty at home ose serving at distant stations, year 1916—Continued.

Philippine Islands.				Hawaii.				Alaska.				Panama.			
Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
0.52	......	......	0.03	0.83	0.12	......	0.11	1.30	......	......	0.04	0.57	0.30	......	0.10
35.75	......	......	.75	18.52	......	......	.37	11.69	......	......	.35	39.30	......	......	.91
.26	......	0.09	.02	.24	......	......	.01	......	......	......	......	.28	......	......	.01
.60	0.09	.09	.05	.35	......	0.12	.05	......	1.34	......	......	.28	......	......	.01
4.32	.09	......	.28	3.07	.24	......	.12	......	......	......	......	3.42	.15	......	.18
.09	......	......	.00	......	......	......	......	......	......	......	......	.14	......	......	.00
1.04	.09	......	.05	1.65	......	......	.06	......	......	......	......	.28	......	......	.07
......	......	.20	.02	......	......	......	......	......	......	......	......	......	......	......	......
.17	......	......	.01	......	......	......	......	......	......	......	......	.43	......	0.14	.01
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
3.89	......	......	.08	3.54	......	......	.04	......	......	......	......	2.99	......	......	.05
1.55	......	......	.03	.59	......	......	.01	......	......	......	......	.43	......	......	.01
49.22	......	......	.77	21.47	......	......	.43	33.77	......	......	.47	32.18	......	......	.61
.17	......	......	.01	......	......	......	......	......	......	......	......	.28	......	.14	.03
14.34	.09	......	.26	10.26	......	......	.15	16.88	......	......	.18	9.82	.15	......	.18
52.59	......	.09	.63	16.05	.12	......	.32	5.19	......	......	.09	30.90	......	.14	.51
1.04	......	......	.05	.47	......	......	.02	1.30	......	......	.03	......	......	......	......
2.25	......	......	.04	.83	......	......	.01	......	......	......	......	.57	......	......	.01
12.95	.09	.17	.78	7.79	......	.24	.61	10.39	......	......	.77	11.39	......	.14	.91
4.49	......	.09	.39	3.54	......	......	.31	5.19	......	......	.43	4.41	.15	.14	.31
1.38	......	......	.04	1.06	......	......	.04	......	......	......	......	2.42	......	......	.16
37.91	.43	.09	.56	25.01	......	......	.27	6.49	......	......	.06	48.70	.15	......	.69
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.26	......	......	.03	.12	......	......	.12	......	......	......	......	.14	......	......	.01
6.56	.09	.09	.26	4.37	......	......	.25	3.90	......	......	.08	3.27	......	......	.11
.17	......	......	.01	......	......	.11	.00	......	......	......	......	......	......	......	......
1.90	......	......	.09	.59	......	.12	.07	......	......	......	......	.57	......	......	.02
1.39	.17	.09	.12	.47	.12	.12	.05	1.30	......	1.30	.34	.57	.30	......	.10
.78	......	......	.06	.24	......	......	.03	1.30	......	......	.08	1.85	......	......	.19
1.81	.09	......	.08	2.48	.24	......	.08	1.30	......	......	.04	2.28	......	......	.10
.69	.09	......	.03	1.53	.24	......	.03	1.30	......	......	.04	.28	......	......	.02
2.07	......	......	.03	7.79	......	......	.10	......	......	......	......	1.42	......	......	.03
.09	......	......	.00	.12	......	......	.01	......	......	......	......	.71	......	......	.02
3.89	......	......	.13	5.78	......	......	.14	6.49	......	......	.21	2.56	.15	......	.11
10.54	......	......	.16	13.10	......	......	.32	2.60	......	......	.04	26.20	......	......	.38
17.62	......	......	.53	18.88	......	......	.54	1.30	......	......	.08	20.37	......	......	.48
2.85	......	......	.11	.83	.36	......	.10	2.60	......	......	.16	5.13	.15	......	.34
2.94	.52	......	.21	2.24	.35	......	.17	2.60	......	......	.02	2.99	.30	......	.30
5.79	1.90	......	.29	4.72	.94	......	.25	6.49	5.37	......	.07	3.99	1.18	......	.20
6.74	.17	......	.20	5.31	......	......	.09	12.99	......	......	.14	4.56	......	......	.15
......	......	......	......	......	......	......	......	......	......	......	......	.14	......	......	.01
5.01	......	......	.10	.35	......	......	.01	......	......	......	......	3.15	......	......	.10
.95	......	......	.05	1.30	......	......	.05	......	......	......	......	.57	.15	......	.01
.26	......	......	.02	.83	......	......	.01	......	......	......	......	.14	......	......	.01
.09	......	.53	......	.24	......	1.06	......	......	......	......	......	.28	......	.42	......
8.89	......	......	......	2.48	......	......	......	......	......	......	......	.57	......	......	......
1.21	......	......	......	.47	......	......	......	......	......	......	......	.57	......	......	......
.26	......	......	......	.83	......	......	......	1.30	......	1.30	......	1.42	......	......	......
......	......	......	......	......	......	......	......	2.60	......	3.91	......	......	......	......	......
3.20	......	......	......	2.95	......	......	......	......	......	......	......	4.56	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	.12	......	......	......	......	......	......	......	......	......	......	......
......	......	.35	......	......	......	1.30	......	......	......	......	......	......	......	.85	......
1.64	......	.09	......	2.12	.12	......	......	2.60	......	......	......	2.14	.28	.28	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......

TABLE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, wit stations placed in comparison with the same data fo*

Serial No.	International classification.	Causes of admission to sick report.	United States.				Mexico (punitive expedition).			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES—continued.								
445	171	Traumatism by cutting or piercing instruments	13.53	0.15	......	......	5.09	......	......	....
446	172	Traumatism by fall	33.44	.37	0.10	......	28.33	0.99	......	....
447	173	Traumatism in mines and quarries	......	......	......	......	......	......	......	....
448	174	Traumatism by machines	.54	.03	......	......	.62	.12	......	....
449	175	Traumatism by other crushing	9.25	.39	.28	......	5.47	.25	0.12	....
450	176	Injuries by animals	12.11	.02	.05	......	20.50	.12	......	....
451	177	Starvation	......	......	......	......	......	......	......	....
452	178	Effects of excessive cold	.23	......	......	......	......	......	......	....
453	179	Effects of heat	1.74	......	.03	......	17.21	......	......	....
454	180	Effects of lightning	......	.02	.02	......	.12	......	.12	....
455	181	Effects of electricity	.02	......	.02	......	......	......	......	....
456–458	182–184	Homicides, all	.08	......	.26	......	.25	......	.87	....
459	185	Fractures, causes not specified	.03	......	......	......	......	......	......	....
460	186	Other external violence	49.00	.20	.10	......	35.03	.37	......	....
462–466	....	Killed or wounded in action:								
462	....	By bullet	.15	.02	.15	......	3.35	.25	3.11	....
463	....	By shell	.15	.02	.15	......	3.23	.25	3.11	....
466	....	By other weapon	......	......	......	......	.12	......	......	....
		DISEASES AND INJURIES GROUPED.								
	....	General diseases	224.04	4.38	1.06	12.12	175.92	6.83	.99	4.
	1–19	Epidemic diseases	105.06	.11	.36	2.83	75.41	.25	.25	2.
	20–59	Other general diseases	118.96	4.27	.70	9.29	100.51	6.58	.75	2.
	....	Diseases of the nervous system and organs of special sense	32.38	5.00	.24	2.61	29.45	2.98	.12	.
	60–74	Of the nervous system	15.27	4.23	.24	1.86	10.19	2.73	.12	.
	75	Of the eye and its annexa	10.26	.41	......	.43	11.43	.25	......	.
	76	Of the ear and its annexa	6.85	.36	......	.32	7.83	......	......	.
	77–85	Diseases of the circulatory system	21.07	.90	.36	1.27	24.35	1.37	.12	.
	86–98	Diseases of the respiratory system	63.05	.46	.49	1.58	33.42	.37	.37	.
	99–118	Diseases of the digestive system	169.77	.98	.36	4.02	314.57	1.24	.37	3.
	119–127	Diseases of the genito-urinary system	11.20	.67	.23	.64	8.95	.75	......	
	142–145	Diseases of the skin and cellular tissue	52.76	.10	......	1.36	44.73	......	......	
	146–149	Diseases of the organs of locomotion	28.79	2.10	......	1.65	27.21	1.62	......	
	150	Malformations, etc	3.01	.03	......	.12	.87	......	......	
	154	Diseases, results of old age	.03	......	......	.00	......	......	......	...
	189	Ill-defined diseases	6.43	.02	.07	.17	28.08	......	.12	
		Total for disease	612.50	14.64	2.80	25.53	687.54	15.16	2.11	12
	155–186	External causes	132.8[illegible]	2.15	2.33	5.14	122.62	3.75	5.47	2
		Total for disease and external causes	745.38	16.76	5.13	30.67	810.16	18.89	7.58	15

ios per 1,000 of mean strength, for American troops (enlisted men) on duty at home se serving at distant stations, year 1916—Continued.

Philippine Islands.				Hawaii.				Alaska.				Panama.			
Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
9.41	......	......	......	8.26	0.12	......	......	19.48	......	......	......	25.63	......	......	......
5.99	0.52	0.09	......	25.72	.35	0.35	......	23.38	......	......	......	29.76	0.28	0.14	......
.09	.09	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1.12	......	......	......	.47	.12	......	......	......	......	......	......	1.00	......	......	......
0.28	.17	.52	......	9.56	......	......	......	......	......	......	......	8.97	.15	.28	......
9.67	......	......	......	5.54	......	......	......	......	......	......	......	8.97	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	9.09	......	......	......	......	......	......	......
1.69	......	......	......	.47	......	......	......	......	......	......	......	2.71	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	.24	......	......	......	......	......	......	......	......	......	......	......
.09	......	.09	......	.12	......	.47	......	......	......	......	......	.28	......	.28	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
3.25	.38	......	......	46.95	......	......	......	35.06	......	......	......	55.10	.30	.14	......
......	......	......	......	......	......	......	......	......	......	......	......	......	.15	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	.15	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
8.20	4.23	1.41	11.91	141.58	5.31	.83	7.11	46.75	4.03	......	.96	264.42	6.04	.57	9.37
3.90	......	......	3.12	23.01	.24	......	.82	7.79	......	......	.07	125.59	......	......	3.29
4.30	4.23	1.41	8.79	118.57	5.07	.83	6.29	38.96	4.03	......	.87	138.83	6.04	.57	6.08
0.06	4.53	.19	1.68	19.23	5.43	.12	.97	13.78	8.05	......	.45	39.58	5.45	.28	2.22
7.40	4.51	.19	1.14	9.79	5.43	.12	.72	2.09	8.05	......	.28	17.80	4.57	.28	1.39
3.82	.02	......	.33	6.96	......	......	.17	7.79	......	......	.11	13.24	.44	......	.58
8.84	......	......	.21	2.48	......	......	.08	3.90	......	......	.06	8.54	.44	......	.25
4.83	.47	.19	1.06	18.40	.35	......	.78	14.29	......	......	.44	36.17	1.33	......	2.18
1.88	.19	.19	1.49	31.97	.35	.12	.90	16.88	1.34	......	.43	63.51	.44	.14	1.63
2.90	.75	.47	3.89	95.09	.12	.35	2.48	83.12	......	......	2.12	147.66	.44	.57	3.60
1.10	.28	.19	.47	17.81	.35	.24	.52	12.99	......	1.30	.71	10.39	.44	......	.60
5.30	.28	......	1.46	54.98	.12	......	1.57	11.69	......	......	.35	95.97	.15	......	2.14
4.35	3.01	......	.97	18.17	1.65	......	.79	22.08	5.37	......	.63	28.05	1.92	......	1.45
7.24	.09	......	.22	5.31	......	......	.09	12.99	......	......	.14	4.56	......	......	.15
......	......	......	......	......	......	......	......	......	......	......	......	.14	......	......	.01
7.24	......	......	.19	2.95	......	......	.09	......	......	......	......	4.27	.15	......	.12
3.06	13.92	2.63	23.33	405.50	13.68	1.65	15.31	241.56	18.79	1.30	6.23	694.67	16.36	1.57	23.45
5.88	1.32	1.79	3.54	109.01	1.89	3.19	3.91	97.40	2.68	5.22	2.78	144.10	2.06	2.42	4.10
8.93	15.23	4.42	26.87	514.51	15.57	4.84	19.22	338.96	21.48	6.52	9.01	838.67	18.43	3.99	27.55

TABLE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops (enlisted men) on duty at home stations, placed in comparison with the same data for those serving at distant stations, year 1916.*

Serial Nos.	International classification.	Causes of admission to sick report.	China.				Transports.				Army.			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
1	1	Typhoid fever									0.20		0.01	0.04
2	1a	Paratyphoid fever	0.73			0.03					1.11			.11
7–11	4	Malaria	8.77			.16	20.45			0.71	22.71		.01	.59
7		Estivo-autumnal fever					2.27			.13	5.38		.01	.17
8		Malarial cachexia									.04			.01
9		Quartan malarial fever									.17			
10		Tertian malarial fever	8.04			.12	17.05			.44	15.01			.37
11		Undetermined malarial fever	.73			.04	1.14				2.11			.04
12	5	Smallpox and varioloid					1.14			.02	.01			
13	5b	Vaccinia					4.55			.06	5.51			.07
14	6	Measles					18.18			.46	13.25	0.02	.09	.57
15	7	Scarlet fever	5.84		.73	.55					.48		.03	.04
17	9	Diphtheria					1.14			.02	.37			.03
18	10	Influenza	16.80			.28	12.50			.18	29.04		.01	.43
19	12	Asiatic cholera									.05			
21–23	14	Dysentery	3.65			.11	1.14			1.03	6.26	.09	.10	.45
21		Bacillary									.52		.01	.02
22		Entamebic	1.46			.05	1.14			1.03	4.02	.09	.08	.38
23		Unclassified	2.19			.07					1.71		.01	.06
27	18	Erysipelas	2.92			.14					.51		.01	.02
29	19b	Dengue									9.10			.14
31	19d	German measles									.13			.01
34	19g	Mumps	5.11			.23	25.00			.58	2.91			.13
37	20	Purulent infection and septicemia									.12		.10	.01
42–46	25	Mycoses									.07			
49–57	28–34	Tuberculosis, all	1.46	2.19	1.46	.11	2.27		1.14	6.18	3.46	2.20	.38	1.79
49–51	28	Tuberculosis of lungs	1.46	2.19	1.46	.11				5.70	3.14	2.09	.34	1.70
52	29	Miliary tuberculosis, acute							1.14	.07	.03	.01	.02	.01
53–57	30–34	Tuberculosis of other organs								.40	.29	.10	.02	.09
58	36	Scoliosis (rickets)									.06	.01		
59–74	37–38	Venereal diseases, all	284.88	.73	.73	13.95	193.18			3.44	103.35	1.60	.13	5.62
59–64	37	Syphilis	56.25		.73	3.11	11.36			1.64	21.36	.74	.12	1.77
65–67	38a	Soft chancre	120.53			5.12	64.77			.36	23.56			1.17
68–74	38b	Gonococcus infection	108.11	.73		5.72	117.05			1.44	58.42	.87	.01	2.68
75–79	39–45	Cancer and other malignant tumors							1.14	.32	.32	.04	.13	.07
80	46	Benign tumors	.73			.00					1.38	.02		.05
81–85	47–48	Rheumatism, articular, all	4.38			.16	2.27			.12	5.70	.18	.01	.37
81–82	47	Acute articular rheumatism	2.92			.11	2.27			.06	4.21	.03	.01	.26
[illegible]	48	Chronic articular rheumatism	1.46			.05				.06	1.48	.15		.11

		Chronic occupational poisoning								.03	.04	.01		.01
103-104	59	Other chronic poisoning, including drug habit	2.19			.04				.03	.46	.03		.02
105-106	60	Encephalitis									.01		.01	.00
107	61	Simple meningitis									.01	.01		.00
108	61a	Epidemic cerebrospinal meningitis									.20	.02	.09	.02
109	62	Locomotor ataxia								.13	.16	.05	.01	.04
110-115	63	Other diseases of spinal cord								.10	.06	.02		.01
116	64	Cerebral hemorrhage, apoplexy									.04		.04	.00
117-119	66	Paralysis without specified cause					1.14			.07	.32	.03	.01	.03
120-126	67-68	Mental alienation	2.92	.73		.25	10.23			6.92	3.72	2.72	.04	.83
127	69	Epilepsy	.73			.02	2.27			.76	1.46	.76		.13
129-133	73	Neuralgia and neuritis	.73			.22	4.55			.61	5.72	.27	.01	.31
138-141	75a	Follicular conjunctivitis	2.92			.02	3.41			.15	4.98	.03		.11
142	75b	Trachoma								.03	.13	.03		.01
166	77	Pericarditis									.07	.01	.01	.01
167	78	Acute endocarditis									.06	.01	.02	.01
169-174	79	Organic heart disease	.73	.73	.73	.11	1.14			1.18	1.68	.56	.17	.20
175	80	Angina pectoris									.09	.01	.01	.01
176-177½	81	Diseases of the arteries, atheroma, aneurism, etc									.19	.05	.04	.02
178-179	82	Embolism and thrombosis									.05		.01	.00
181	83b	Hemorrhoids	6.57			.16				.03	7.56	.01		.24
183	83d	Varicose veins								.11	.91	.12		.07
184	83e	Variocele									2.27	.01		.11
185-187	84	Diseases of the lymphatic system	32.14			1.51	2.27			.12	8.17			.48
193-199	86	Diseases of the nasal fossae	1.46			.10	3.41			.11	13.72	.02		.22
200-202	87	Diseases of the larnyx	2.19			.03	1.14			.08	1.79	.01	.01	.03
203-204	88	Diseases of the thyroid body	.73			.01				.06	.36	.09		.05
205-206	89-90	Bronchitis	31.41			.79	52.27			2.29	33.88	.05		.65
207	91	Broncho-pneumonia	1.46			.12					.19		.08	.04
208	92	Pneumonia	6.57	.73	2.92	.29	6.82			.31	2.07	.03	.28	.15
209-215	93	Pleurisy	2.92			.26	9.09			1.40	3.39	.08		.23
216-217	94	Pulmonary congestion and pulmonary apoplexy	.73			.02					.05		.02	.00
219	96	Asthma								.31	1.05	.12		.07
220	97	Pulmonary emphysema									.02	.01		.00
221	98a	Hemoptysis									.10			.00
222	98b	Hay fever	.73			.00					.04			.00
224-227	99a	Diseases of the teeth and gums	3.65			.03	4.55			.12	6.30			.11
228-231	99b	Other diseases of the mouth and annexa	4.38			.03					.96			.02
232-236	100	Diseases of the pharynx	56.25			1.07	75.00			.85	56.46			.84
238	102	Ulcer of stomach								.03	.25	.05	.02	.03
239-244	103	Other diseases of stomach (cancer excepted)	2.19			.10	7.95			.31	11.62	.11		.25
245-253	105	Diarrhea and enteritis	69.39			.65	21.59			.62	49.81	.04	.01	.64
254	106	Ankylostomiasis									.40			.02
255-259	107	Intestinal parasites	1.46			.01					1.26			.02
260	108	Appendicitis	13.88			1.42	4.55			.21	9.91	.03	.16	.71
261-263	109	Hernia	4.38			.61	1.14			.16	4.99	.36	.01	.49
264-267	110a	Diseases of the anus and fæcal fistula									.87			.05
268-272	110b	Other diseases of the intestines	50.40			.57	21.59			.81	28.41	.19	.01	.42
275	113	Cirrhosis of liver									.10	.10	.01	.01

TABLE No. 76.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for foreign stations, 1916*—Con.

Serial Nos.	International classification.	Causes of admission to sick report.	China.				Transports.				Army.			
			Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.	Admissions.	Discharges.	Deaths.	Noneffective.
276	114	Biliary calculi	....	....	....	....	....	....	....	....	0.13	....	....	0.02
277-281	115	Other diseases of liver and gall bladder	13.15	....	....	0.42	2.27	....	....	0.16	4.27	0.03	0.04	.18
283-284	117	Simple peritonitis	....	....	....	....	1.14	....	....	.01	.06	....	.04	.00
288	119	Acute nephritis	.73	....	....	.04	2.27	....	....	.04	.61	....	.06	.03
289-291	120	Bright's disease	2.19	1.46	....	.14	....	....	....	1.04	.70	.18	.11	.13
293-299	122	Other diseases of the kidney and annexa	.73	....	....	.13	....	....	....	.17	.74	.06	.02	.09
303-306	124	Diseases of the bladder	.73	1.46	....	.04	....	....	....	.53	2.42	.29	....	.11
304	124b	Enuresis	.73	1.46	....	.04	....	....	....	.43	1.23	.29	....	.07
307-309	125	Diseases of the urethra, urinary abscess, etc	4.38	....	....	.04	2.27	....	....	.02	2.08	....	....	.04
310-312	126	Diseases of the prostate	....	....	....	....	....	....	....	....	.16	....	....	.01
313-319	127	Diseases of the male genital organs (nonvenereal)	8.04	....	....	.13	3.41	....	....	.12	4.48	.03	....	.15
322-323	143	Furuncle and carbuncle	10.96	....	....	.24	7.95	....	....	.10	15.07	....	....	.26
324-325	144	Acute abscess and cellulitis	10.95	....	....	.44	4.55	....	....	.20	15.44	....	....	.42
352-357	146	Diseases of the bones	3.65	....	....	.05	2.27	....	....	.30	2.49	.11	....	.21
358-360	147	Diseases of the joints	5.84	.73	....	.60	1.14	....	....	1.01	3.98	.38	....	.34
367	147g	Flat foot	6.57	2.19	....	.34	....	....	....	3.11	4.11	1.40	....	.37
372	150	Congenital malformations	.73	....	....	.01	....	....	....	.24	3.62	.03	....	.12
373-374	154	Senility	....	....	....	....	....	....	....	.02	.03	....	....	.00
375	189Aa	Febricula, simple continued, and other fevers of undetermined causation	....	....	....	....	11.36	....	....	.10	5.63	....	....	.14
379	189Ba	Under observation, undiagnosed and unknown	.73	....	....	.13	....	....	....	.26	1.00	.01	.05	.05
380	189Bb	Malingering	....	....	....	....	2.27	....	....	.02	.44	....	....	.02
		AFFECTIONS PRODUCED BY EXTERNAL CAUSES.												
426-434	155-163	Suicides, all	.73	....	....	1.46	....	1.14	....	....	.11	....	.59	....
435	164	Poisoning by food	14.61	....	....	....	....	....	....	....	2.19	....	....	....
436	165a	Venomous bites and stings	....	....	....	....	....	....	....	....	.74	....	....	....
437	165b	Other poisoning (deleterious gases excepted)	.73	....	....	....	....	....	....	....	.56	....	.05	....
438	166	Conflagration	....	....	....	....	....	....	....	....	.02	....	.03	....
439	167	Burns (conflagrations excepted)	....	....	....	....	2.27	....	....	....	3.56	....	....	....
440	168	Absorption of deleterious gases	....	....	....	....	....	....	....	....	.01	....	.02	....
441	168a	Suffocation, strangulation	....	....	....	....	....	....	....	....	.02	....	.01	....
442	169	Drowning, accidental	....	....	....	.73	....	....	....	....	....	....	.45	....
443	170	Traumatism by firearms (other than specified)	2.19	....	....	....	....	....	....	....	3.90	.48	.24	....
444	170a	Shot by sentry or guard	....	....	....	....	....	....	....	....	.04	.02	.03	....
445	171	Traumatism by cutting or piercing instruments	6.57	....	....	....	1.14	....	....	....	12.65	.10	....	....
446	172	Traumatism by fall	25.57	....	....	....	10.23	....	....	....	30.89	.44	.11	....
447	173	Traumatism in mines and quarries	....	....	....	....	....	....	....	....	.01	....	.01	....
448	174	Traumatism by machines	....	....	....	....	....	....	....	....	.63	.02	....	....
				....	....	....	4.55	....	....	....	8.87	.34	.26	....

453	179	Effects of heat	.73								1.72		.02	
454	180	Effects of lightning									.01	.01	.02	
455	181	Effects of electricity									.03		.01	
456–458	182-4	Homicides, all									.11		.29	
459	185	Fractures, causes not specified									.02			
460	186	Other external violence	4.64				11.36				47.60	.25	.07	
462–466		Killed or wounded in action:												
462		By bullet									.36	.04	.34	
463		By shell									.35	.04	.34	
464		By sword or bayonet												
465		By bolo, kris, etc												
466		By other weapon									.01			
		DISEASES AND INJURIES GROUPED.												
		General diseases	354.27	3.65	3.65	16.23	286.36		2.27	14.38	225.66	4.68	1.09	10.93
	1-19	Epidemic diseases	43.83		.73	1.49	84.09			3.06	95.28	.11	.26	2.66
	20-59	Other general diseases	310.45	3.65	2.92	14.74	202.27		2.27	11.33	130.37	4.57	.83	8.28
		Diseases of the nervous system and organs of special sense	22.64	2.19		.85	29.55			11.47	32.16	4.76	.21	2.22
	60-74	Of the nervous system	11.69	1.46		.53	18.18			10.21	14.75	4.19	.21	1.57
	75	Of the eye and its annexa	4.38	.73		.09	6.82			.87	10.52	.32		.38
	76	Of the ear and its annexa	6.57			.23	4.55			.39	6.89	.25		.27
	77-85	Diseases of the circulatory system	39.44		.73	1.78	4.55			1.51	22.71	.86	.26	1.23
	86-98	Diseases of the respiratory system	48.21	.73	2.92	1.61	72.73			4.50	57.14	.41	.41	1.44
	99-118	Diseases of the digestive system	19.14			4.62	139.77			3.40	175.80	.83	.38	3.83
	119-127	Diseases of the genito-urinary system	16.80	2.92		.52	7.95			1.96	11.75	.60	.19	.59
	142-145	Diseases of the skin and cellular tissue	40.91			1.26	29.55			1.48	55.25	.11		1.41
	146-149	Diseases of the organs of locomotion	35.79	2.92		1.22	9.09			5.21	27.01	2.12		1.42
	150	Malformations, etc	.73			.01	1.14			.24	3.62	.03		.12
	154	Diseases, results of old age									.03			.00
	189	Ill-defined diseases	.73			.13	59.09			.88	8.10	.01	.05	.22
		Total for disease	778.67	13.15	8.04	28.22	639.77		2.27	45.05	619.22	14.42	2.60	23.41
	155-186	External causes	95.69		2.19	2.33	31.82		1.14	3.59	128.36	2.11	2.60	4.58
		Total for disease and external causes	874.36	13.15	10.23	30.57	671.59		3.41	48.63	747.59	16.52	5.20	27.98

Table No. 79.—*Showing the most important diseases, by departments in the United States (continental, excluding Alaska), 1916—officers and enlisted men.*

ADMISSIONS, ABSOLUTE NUMBERS.

Diseases.	Eastern Department.	Central Department.	Southern Department.	Western Department.	Recruit depots.	Independent stations.	General hospitals.	Total.	Troops in Mexico.
1. Alcoholismus, acutus, including delirium tremens	269	24	274	61	43	27	36	734	9
2. Appendicitis, typhlitis, perityphlitis	133	10	352	40	42	24	21	622	79
3. Bronchitis, acuta	549	61	915	114	600	33	17	2,289	159
4. Cholera Asiatica									
5. Cholera nostras							1	1	
6. Diphtheria	3	1	15	12	1		1	33	
7. Dysenteria	14	10	218	10	5		8	265	194
8. Erysipelas	9	3	28		3		1	44	2
9. Febris intermittens (malaria)	85	4	447	15	106	8	1	666	74
10. Febris recurrens									
11. Fractura ossium									
12. Gonorrhea	663	64	1,833	261	463	49	38	3,371	203
13. Hernia	80	13	141	31	45	8	9	327	53
14. Influenza	832	67	1,033	271	180	134	26	2,543	20
15. Insolatio (Hitzschlag coup de chaleur)	2		14					16	
16. Luxationes articulorum	531	50	845	161	195	44	10	1,836	108
17. Meningitis, cerebrospinalis, epidemica	2		3		11	1	1	18	
18. Morbilli	100	12	322	32	779	1	1	1,247	8
19. Parotitis epidemica	50	6	62	15	61	3	5	202	13
20. Pleuritis	42	5	119	12	13	4	6	201	30
21. Pneumonia crouposa sive lobaris	36	4	80	8	34		2	164	20
22. Rheumatismus articulorum	122	10	222	27	29	10	4	424	61
23. Scarlatina	1		12	4	18		1	36	4
24. Scorbutus									
25. Syphilis	253	23	569	90	141	16	43	1,135	174
26. Trachoma			11					11	
27. Turbuculosis pulmonum	32	8	101	19	18	9	16	203	12
28. Tuberculosis ceterorum organorum	4	2	8	2	3		1	20	4
29. Typhus abdominalis	2		9	1	3		1	16	7
30. Typhus exanthematicus									
31. Ulcus molle	153	11	850	27	60	4	2	1,107	102
32. Variola									1
33. Morbi auris	72	10	229	33	73	9	9	435	63
34. Morbi cordis	26	6	53	16	19	4	8	132	10
35. Morbi cutis	427	25	648	104	197	24	17	1,442	121
36. Morbi mentis	48	7	96	25	41	6	11	237	9
37. Morbi oculi	166	15	336	69	60	17	13	676	95
38. Morbisystemat urin, et sexual (excluding venerie et syphilis)	183	22	326	58	98	21	21	729	73

ADMISSIONS PER 1,000 OF MEAN STRENGTH, PROPORTIONATE NUMBERS.

Diseases.	Eastern Department.	Central Department.	Southern Department.	Western Department.	Recruit depots.	Independent stations.	General hospitals.	Total.	Troops in Mexico.
1. Alcoholismus, acutus, including delirium tremens	16.98	14.44	8.39	10.15	7.77	12.30	65.21	11.39	1.08
2. Appendicitis, typhlitis, perityphlitis	8.39	6.02	10.78	6.66	7.59	10.93	38.04	9.65	9.47
3. Bronchitis, acuta	34.65	35.70	28.01	18.97	108.45	15.03	30.80	35.50	19.06
4. Cholera Asiatica									
5. Cholera nostras							1.81	.02	
6. Diphtheria	.19	.60	.46	2.00	.18		1.81	.51	
7. Dysenteria	.88	6.02	6.67	1.66	.90		14.49	4.11	23.25
8. Erysipelas	.57	1.81	.83		.54		1.81	.68	.24
9. Febris intermittens (malaria)	5.36	2.41	13.68	2.59	19.16	3.64	1.81	10.33	8.87
10. Febris recurrens									
11. Fractura ossium									
12. Gonorrhea	41.84	38.51	56.11	43.43	83.69	22.31	68.84	52.29	31.52
13. Hernia	5.05	7.82	4.32	5.16	8.13	3.64	16.30	5.07	6.35
14. Influenza	52.51	40.31	31.62	45.10	32.53	61.02	47.10	39.45	2.40
15. Insolatio (Hitzschlag coup de chaleur)	.13		.43					.25	
16. Luxationes articulorum	33.51	39.08	25.87	26.79	35.24	20.04	18.12	28.48	20.14
17. Meningitis, cerebrospinalis, epidemica	.13		.09		1.99	.46	1.81	.28	
18. Morbilli	6.31	7.22	9.86	5.33	140.79	.46	1.81	19.34	.96
19. Parotitis epidemica	3.16	3.61	1.90	2.50	11.03	1.37	9.06	3.13	1.56
20. Pleuritis	2.65	3.01	3.64	2.00	2.35	1.82	10.87	3.12	3.60
21. Pneumonia crouposa sive lobaris	2.27	2.41	2.45	1.33	6.14		3.62	2.54	2.40
22. Rheumatismus articulorum	7.70	6.02	6.80	4.49	5.24	4.55	7.24	6.58	7.31
23. Scarlatina	.06		.37	.67	3.25		1.81	.56	.48
24. Scorbutus									
25. Syphilis	15.97	13.84	17.42	14.98	25.48	7.29	77.90	17.61	20.86
26. Trachoma			.34					.17	
27. Tuberculosis pulmonum	2.02	4.80	3.09	3.16	3.25	4.10	28.99	3.15	1.44
28. Tuberculosis ceterorum organorum	.25	1.20	.24	.33	.54		1.81	.31	.48
29. Typhus abdominalis	.13		.28	.17	.54		1.81	.25	.84
30. Typhus exanthematicus									
31. Ulcus molle	9.66	6.62	25.02	4.49	19.84	1.82	3.62	17.17	12.22
32. Variola									.12
33. Morbi auris	4.51	6.02	7.01	5.49	13.19	4.10	16.30	6.75	7.55
34. Morbi cordis	1.64	3.61	1.62	2.66	3.43	1.82	14.49	2.05	1.20
35. Morbi cutis	25.95	15.04	19.84	17.31	35.60	10.93	30.80	22.37	14.50
36. Morbi mentis	3.03	4.21	2.94	4.15	7.41	2.73	25.35	3.68	1.08
37. Morbi oculi	10.48	9.63	10.29	11.48	15.84	7.74	23.55	10.49	11.39
38. Morbi systemat urin, et sexual (excluding venerie et syphilis)	11.55	13.24	9.98	9.67	17.71	9.56	38.04	11.31	8.75

TABLE NO. 80.—*Comparative figures, enlisted American troops, Army, 1912–1916.*

ABSOLUTE NUMBERS.

Army.	Mean strength.	Admissions to sick report.		Discharges on certificate of disability.		Deaths.		Total losses.		Total days.				Constantly noneffective.			
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										Total.	In hospital	Total.	In hospital.	Total.	In hospital.	Total.	In hospital.
1916.....	99,186	74,150	49,430	1,639	1,258	517	243	2,156	1,501	1,015,840	894,914	635,605	....	2,775.52	2,445.12	1,736.63	....
1915.....	93,262	69,442	45,210	1,351	1,110	436	234	1,787	1,344	880,823	763,983	555,810	493,402	2,413.21	2,093.10	1,522.77	1,351.79
1914.....	87,228	58,079	35,502	1,145	921	392	195	1,537	1,116	764,883	684,082	467,890	428,246	2,095,57	1,874.20	1,281.89	1,173.28
1913.....	80,766	54,257	33,459	1,082	865	397	202	1,479	1,067	717,149	659,086	447,061	420,217	1,964.79	1,805.72	1,224.82	1,151.28
1912.....	78,267	64,487	39,952	1,069	844	381	169	1,450	1,013	862,221	790,213	494,236	459,521	2,355.80	2,159.05	1,350.37	1,255.52

PROPORTIONATE NUMBERS.

Army.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases. alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.					
										Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
1916	99,186	747.59	498.37	16.52	12.68	5.21	2.45	21.73	15.13	27.98	24.65	1,736.63	....	10.24	13.70	6.41	12.86
1915	93,262	744.59	484.76	14.26	11.72	4.60	2.47	18.86	14.19	25.88	22.44	16.33	14.49	9.44	12.68	5.96	12.29
1914	87,228	665.83	407.00	12.99	10.45	4.45	2.21	17.44	12.66	24.02	21.49	14.70	13.45	8.77	13.17	5.36	13.18
1913	80,766	671.78	414.27	13.24	10.59	4.86	2.47	18.10	13.06	24.33	22.36	15.17	14.26	8.88	13.22	5.53	13.36
1912	78,267	823.94	510.46	13.43	10.60	4.79	2.12	18.22	12.72	30.10	27.58	17.25	16.04	11.02	13.37	6.31	12.37

Table No. 81.—*Ratios per 1,000 of mean strength for "total admissions" and for "cas admissions" for enlisted American troops in the Army (as a whole), in the Unite States (continental), excluding Alaska, and in the Philippine Islands, for the yea 1904 to 1911, for disease, external causes, and all causes.*

Year.	Enlisted American troops.	Army.		United States (continental), excluding Alaska.		Philippine Islands	
		Total admissions.	Case admissions.	Total admissions.	Case admissions.	Total admissions.	Case admissions.
1904	Diseases	1,114	1,002	1,049	951	1,473	1,2
	External causes	241	228	257	242	215	2
	All causes	1,355	1,230	1,306	1,193	1,688	1,4
1905	Diseases	1,058	975	998	921	1,387	1,2
	External causes	238	226	252	239	213	2
	All causes	1,296	1,201	1,250	1,160	1,600	1,4
1906	Diseases	1,053	987	944	879	1,494	1,4
	External causes	224	216	236	226	206	2
	All causes	1,277	1,203	1,180	1,105	1,700	1,6
1907	Diseases	1,005	926	956	885	1,260	1,1
	External causes	213	206	216	208	223	2
	All causes	1,218	1,132	1,172	1,093	1,483	1,3
1908	Diseases	963	891	922	860	1,208	1,0
	External causes	225	217	227	219	232	2
	All causes	1,188	1,108	1,149	1,079	1,440	1,3
1909	Diseases	866	791	822	750	1,156	1,0
	External causes	197	190	202	195	192	1
	All causes	1,063	981	1,024	945	1,348	1,2
1910	Diseases	766	707	715	662	1,048	9
	External causes	184	178	184	178	195	1
	All causes	950	885	899	840	1,243	1,1
1911	Diseases	770	718	726	680	1,028	9
	External causes	166	161	162	157	190	1
	All causes	936	879	888	837	1,218	1,1

INTERNATIONAL MILITARY MEDICAL STATISTICS FOR THE YEAR 1916.

These tables are those agreed upon at the International Commissic for the Unification of the Medical Statistics of Armies, held at Bud: pest in 1894: at Madrid in 1903; and modified by the last meeting, he at Berlin in 1907. They are calculated for the United States Arm proper (white and colored), and include enlisted men only. Disp sitions include cases remaining from last year. Deaths incluc suicides and accidents. Days lost include those lost this year b cases remaining from last year.

Table I shows in absolute numbers, by divisions, the mean strengt of the command, the admissions to quarters, to hospital, and tot admissions, the disposition of the sick, total, and the number returne to duty, died, and otherwise disposed of, and the total number days' sickness.

Table II gives the same data in ratios per 1,000 and also shows tl days lost per soldier and per admission.

Table III shows, by arms of service, the mean strength, the total dmissions, and those admitted to hospital only, the total dispositions, and the number of those returned to duty and the number that ied.

Table IV is omitted in the series.

Table V shows for each of the larger garrisons the mean strength, lmissions to hospital, total admissions, and the deaths.

Table VI shows for each of the 38 diseases or disease groups agreed pon by the international commission the number remaining under eatment at the commencement and close of the current year, the lmissions and dispositions for the year, the total sick days, and the verage number of days per case.

Table VII shows the admissions by arms of service for the diseases ıd disease groups referred to in Table VI.

Table VIII is omitted in the series.

Table IX shows deaths by rank, by length of service, and by age.

Table X shows the same data as Table IX for discharges for physical isability.

INTERNATIONAL TABLE I.—*Movement of sick by Army corps (departments).*

ABSOLUTE NUMBERS (ENLISTED MEN)).

	Admitted sick.				Sick disposed of.				Total days sick.
	Mean strength.	Total.	To hospital.	To quarters.	Returned to duty recovered.	Died.	Otherwise disposed of.	Total.	
ited States (excluding laska):									
Eastern Department	14,959	10,254	8,939	1,315	9,750	47	163	9,960	102,043
Central Department	1,515	1,018	902	116	982	13	33	1,028	13,100
Southern Department (excluding troops on Mexican border)	5,224	4,693	4,460	233	7,339	62	409	7,810	158,155
Western Department	5,743	3,019	2,363	656	2,179	13	34	2,226	22,776
Mexican border	26,065	19,097	10,093	9,004	15,094	110	265	15,469	157,016
Independent stations	1,989	977	669	308	872	3	17	892	8,432
Recruit depots	5,411	6,177	5,947	230	5,490	28	142	5,660	57,580
General hospitals	504	539	514	25	1,925	39	476	2,440	170,335
Total	61,410	45,774	33,887	11,887	43,631	315	1,539	45,485	689,437
ıska [1]	745	257	229	28	234	5	17	256	2,516
xico	8,049	6,521	3,761	2,760	5,107	61	180	5,348	46,020
nal Zone, Panama [1]	6,783	5,763	3,974	1,789	5,499	28	149	5,676	69,881
waiian Department	8,476	4,361	3,985	376	4,150	41	175	4,366	59,617
ina [1]	1,321	1,176	1,031	145	1,126	14	34	1,174	15,140
ilippine Department	11,580	9,711	9,223	488	9,046	52	224	9,322	118,177
my transports	822	587	563	24	371	......	4	375	15,052
Army	99,186	74,150	56,653	17,497	69,164	516	2,322	72,002	1,015,840

[1] Separated from the department to which they belong for purposes of comparison.

INTERNATIONAL TABLE II.—*Movement of sick, by Army corps (departments).*

PROPORTIONATE NUMBERS (ENLISTED MEN).

	In 1,000 of mean strength.			In 1,000 disposed of.			Days lost	
	Total admissions.	Admissions to hospital.	Deaths.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Per soldier.	Pe adn sic
United States (excluding Alaska):								
Eastern Department	685.47	597.57	3.14	978.92	4.72	16.37	6.82	
Central Department	671.95	595.38	8.58	955.25	12.65	32.10	8.65	1
Southern Department (excluding troops on Mexican border)	898.35	853.75	11.87	939.69	7.94	52.37	30.27	3
Western Department	525.68	411.46	2.26	978.89	5.84	15.27	3.97	
Mexican border	732.67	387.22	4.22	975.76	7.11	17.13	6.02	
Independent stations	491.20	336.35	1.51	977.58	3.36	19.06	4.24	
Recruit depots	1,141.56	1,099.06	5.17	969.96	4.95	25.09	10.64	
General hospitals	1,069.44	....	....	661.97	27.17	310.87	....	...
Total	745.38	551.81	5.13	959.24	6.93	33.84	11.23	1
Alaska	344.97	307.38	6.71	914.06	19.53	66.41	3.38	
Mexico	810.16	467.26	7.58	954.94	11.41	33.66	5.72	
Canal Zone, Panama	849.62	585.88	4.13	968.82	4.93	26.25	10.30	1
Hawaiian Department	514.51	470.15	4.84	950.53	9.39	40.08	7.03	1
China	890.23	780.48	10.60	959.11	11.93	28.96	11.46	1
Philippine Department	838.60	796.46	4.49	970.39	5.58	24.03	10.21	1
Army transports	714.11	684.91	....	989.33	....	10.67	18.31	2
Army	747.59	571.18	5.20	960.58	7.17	32.25	10.24	1

INTERNATIONAL TABLE III.—*Movement of sick, by arms of service—Army—Enli men, American troops.*

Arms of service.	Mean strength.	Absolute numbers.					Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,00 of sick d posed o	
		Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total Sick admissions.	Admissions to hospital.	Deaths.	Fit for duty (recovered).	De
Infantry	35,458	26,272	17,892	25,419	24,354	173	740.93	504.60	4.88	958.10	
Cavalry	16,070	13,993	10,314	13,622	13,125	120	870.75	641.82	7.47	963.51	
Coast Artillery	18,630	12,432	10,997	2,328	1,877	76	667.31	590.29	4.08	806.27	
Field Artillery	6,094	5,537	3,951	5,332	5,171	24	908.60	648.34	3.94	969.80	
Engineers	1,939	1,582	1,101	1,564	1,478	16	815.88	567.82	8.25	945.01	
Ordnance	744	396	203	387	374	4	532.26	272.85	5.38	966.41	
Signal Corps	1,590	892	598	869	832	5	561.01	376.10	3.14	957.42	
Hospital Corps	5,036	3,706	3,169	3,539	3,356	26	735.90	629.27	5.16	948.29	
Others	13,625	9,340	8,428	8,942	8,597	72	685.50	618.57	5.28	961.42	
Total	99,186	74,150	56,653	72,002	69,164	516	747.59	571.18	5.20	960.58	

TERNATIONAL TABLE V.—*Movement of sick in the larger garrisons, officers and enlisted men, year 1916.*

Garrison.	Mean strength.	Total admissions.		Admissions to hospital.		Deaths.	
		Absolute numbers.	Per 1,000 of mean strength.	Absolute numbers.	Per 1,000 of mean strength.	Absolute numbers.	Per 1,000 of mean strength.
t Sam Houston, Tex	2,135	2,393	1,120.84	2,300	1,077.29	15	7.03
erson Barracks, Mo	1,481	1,788	1,207.29	1,770	1,195.14	4	2.70
t Bliss, Tex	1,341	1,333	994.03	1,204	897.84	37	27.59
umbus Barracks, Ohio	1,331	1,843	1,384.67	1,795	1,348.61	12	9.02
t Slocum, N. Y	1,162	1,021	878.66	1,011	870.05	2	1.72
t Monroe, Va	1,156	634	548.45	559	483.56	1	.87
t McDowell, Cal	950	799	841.05	673	708.42	4	4.21
t Sill, Okla	925	469	507.03	420	454.06	3	3.24
st Point, N. Y	840	297	353.57	240	285.72	2	2.38
t Hancock, N. J	670	495	738.81	470	701.49	2	2.99
t H. G. Wright, N. Y	644	485	753.10	434	673.91	......	......
ncouver Barracks, Wash	640	300	468.75	279	435.94	3	4.69
t Worden, Wash	639	300	469.48	287	449.14	2	3.13
t Ethan Allen, Vt	630	581	922.22	522	828.57	......	......
t Logan, Colo	609	773	1,269.29	704	1,155.99	7	11.49
t Terry, N. Y	602	257	426.91	197	327.24	......	......
sidio of San Francisco, Cal	542	328	605.17	9	16.61	1	1.85
t Adams, R. I	516	390	755.81	192	372.09	......	......
t Myer, Va	513	459	894.74	410	799.22	......	......
t Hamilton, N. Y	505	249	493.07	151	299.01	1	1.98
t Totten, N. Y	495	286	577.78	238	480.81	3	6.06
t Leavenworth, Kans	487	300	616.02	248	509.24	7	14.37
ttsburg Barracks, N. Y	473	356	752.64	277	585.63	2	4.23
ofield Barracks, Hawaii	5,707	3,095	542.32	2,880	504.64	26	4.56
t Shafter, Hawaii	1,687	693	410.79	600	355.66	8	4.74
t Kamehameha, Hawaii	559	191	341.68	139	248.66	2	3.58
t William H. Seward, Alaska	223	93	417.04	91	408.07	1	4.48
t Gibbon, Alaska	210	102	488.71	83	395.24	3	14.29
t Davis, Alaska	104	15	144.23	9	86.54	1	9.62
t Mills, P. I	4,486	2,549	568.21	2,492	555.51	18	4.01
t William McKinley, P. I	3,037	2,602	856.77	2,482	817.25	17	5.60
np Stotsenburg, P. I	2,050	2,323	1,133.17	2,245	1,095.12	9	4.39
ur Barracks, P. I	935	580	620.32	551	589.31	6	6.42
llow Barracks, P. I	932	400	429.18	379	406.65	1	1.07
np Keithley, P. I	862	356	412.99	339	393.27	2	2.32
np McGrath, P. I	823	579	703.52	555	674.36	15	18.80
rtel de Espana, P. I	791	673	850.82	479	605.56	1	1.26
an Barracks, P. I	573	530	924.96	386	673.64	4	6.98
np John Hay, P. I	565	367	649.56	357	631.86	1	1.77

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases, Army (American troops), enlisted men, 1916.*

	Absolute numbers.									Proportionate numbers.					Average days of treatment.
	Remaining at close, 1915.	Admitted, 1916.	Total remaining and admitted.	Disposed of, 1916.				Remaining at close of 1916.	Total days sick in 1916.	Per 1,000 of mean strength.		Per 1,000 disposed of.			
				Fit for duty.	Died.	Otherwise.	Total.			Admissions.	Deaths.	Fit for duty.	Died.	Otherwise.	
1. Alkoholismus acutus, including delerium tremens	13	1,084	1,097	1,080	2	11	1,093	10	4,314	10.93	0.02	988.11	1.83	10.06	3.93
2. Appendicitis, typhlitis, and perityphlitis	37	983	1,020	907	16	27	950	73	2,570	9.91	.16	954.74	16.84	28.42	2.52
3. Bronchitis acuta	29	3,235	3,264	3,098	....	19	3,117	153	23,586	32.61	....	993.90	....	6.10	7.23
4. Cholera Asiatica	....	5	5	5	....	....	5	....	173	.05	....	1,000.00	....	....	34.60
5. Cholera nostras	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
6. Diphtheria et croup	9	37	46	42	....	1	43	3	923	.37	....	976.74	....	23.26	20.07
7. Dysenteria	15	621	636	563	10	21	594	49	16,366	6.26	.10	947.81	16.83	35.36	25.73
8. Erysipelas	1	51	52	42	1	1	44	8	870	.51	.01	954.55	22.73	22.73	16.73
9. Febris intermittens (malaria)	15	2,253	2,268	2,214	1	17	2,232	40	21,423	22.71	.01	991.94	.45	7.62	9.45
10. Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
11. Fractura ossium	136	1,320	1,4[illegible]	1,226	33	79	1,338	115	51,596	13.31	.33	916.29	24.66	59.04	35.44
12. Gonorrhea	225	5,795	6,020	4,753	1	146	4,900	227	97,425	58.42	.01	970.00	.20	29.80	16.18
13. Hernia	26	486	512	416	4	52	472	42	17,676	4.90	.04	881.36	8.47	110.17	34.52
14. Influenza	127	2,880	3,007	2,898	1	20	2,919	87	15,619	29.04	.01	992.81	.34	6.85	5.19
15. Insolatio (Hitzschlag, coup de chaleur)	....	18	18	18	1	1	20	....	134	.18	.01	900.00	50.00	50.00	7.44
16. Luxationes articulorum	46	2,772	2,818	2,747	....	20	2,767	62	21,491	27.95	....	992.77	....	7.23	7.63
17. Meningitis cerebrospinalis epidemica	1	20	21	3	9	2	14	7	598	.20	.09	214.29	642.86	142.86	28.48
18. Morbilli	16	1,314	1,330	1,163	9	25	1,197	143	20,543	13.25	.09	971.60	7.52	20.89	15.44
19. Parotitis epidemica	1	289	290	272	....	3	275	17	4,562	2.91	....	989.09	....	10.91	15.73
20. Pleuritis	16	336	352	307	....	21	328	16	8,184	3.39	....	935.98	....	64.02	23.25
21. Pneumonia crouposa sive lobaris	24	205	229	134	28	11	173	57	577	2.07	.28	774.56	161.85	63.58	2.52
22. Rheumatismus articulorum	25	565	590	508	1	29	538	56	13,360	5.70	.01	944.24	1.86	53.90	22.64
23. Scarlatina	1	48	49	39	3	2	44	5	1,559	.48	.03	886.36	68.18	45.46	31.82
24. Scorbutus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
25. Syphilis	139	2,119	2,258	1,841	12	282	2,135	151	64,287	21.37	.12	862.30	5.62	132.08	28.47
26. Trachoma	1	13	14	9	....	4	13	1	297	.13	....	692.31	....	307.69	21.21
27. Tuberculosis pulmonum[1]	181	311	492	56	34	221	314	186	61,664	3.14	.34	178.34	108.28	713.38	125.33
28. Tuberculosis ceterorum organorum	10	32	42	16	4	15	35	6	3,249	.32	.04	457.14	114.29	428.57	77.36
29. Typhus abdominalis	4	20	24	20	1	1	22	3	1,294	.20	.01	909.09	45.45	45.45	53.92
30. Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
31. Ulcus molle	66	2,337	2,403	1,801	....	576	2,377	137	42,115	23.56	....	757.68	....	242.32	17.65
32. Variola	....	1	1	1	....	....	1	....	10	....	.01	1,000.00	....	....	10.00
33. [illegible]	11	683	694	615	....	30	645	51	9,684	6.09	....	953.49	....	46.51	13.95
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	107.53	322.58	40.39

37. Morbi ocul.	22	,043	1,065	952	....	44	1,026	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38. Morbi systemat. urin. et sexual. (excluding venerie et syphilis)	43	1,165	1,208	1,052	19	69	1,140	72	21,415	11.75	.19	922.81	16.67	60.73	17.73

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[1] Includes tuberculosis of the larynx.

[2] Includes pericarditis and endocarditis.

[3] Diseases of the skin proper only.

INTERNATIONAL TABLE VII.—*Most important diseases, by arms of service (enlisted men), American troops, 1916.*

Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.									Proportionate numbers—Admissions per 1,000 of mean strength.								
	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.
1. Alkoholismus acutus, including delirium tremens	430	95	275	63	24	12	22	145	139	12.13	5.91	14.76	10.34	12.38	16.13	13.84	28.79	10.20
2. Appendicitis, typhlitis and perityphlitis	330	166	166	67	26	6	12	103	107	9.31	10.33	8.91	10.99	13.41	8.06	7.55	20.45	7.85
3. Bronchitis acuta	903	471	604	207	52	10	43	209	736	25.47	29.31	32.42	33.97	26.82	13.44	27.04	41.50	54.02
4. Cholera Asiatica	3							1	1	.08							.20	.07
5. Cholera nostras																		
6. Diphtheria et croup	13	6	9	1			1	2	5	.37	.37	.48	.16			.63	.40	.37
7. Dysenteria	238	161	27	44	14	2	19	51		6.71	10.02	1.45	7.22	7.22	2.69	11.95	10.13	
8. Erysipelas	23	6	5	5	1		2	5	4	.65	.37	.27	.82	.52		1.26	.99	.29
9. Febris intermittens (malaria)[1]	439	252	266	239	70	3	18	60	159	12.38	15.68	14.28	39.22	36.10	4.03	11.32	11.91	11.67
10. Febris recurrens																		
11. Fractura ossium	413	339	189	132	30	5	15	42	155	11.65	21.10	10.14	21.66	15.47	6.72	9.43	8.34	11.38
12. Gonorrhea	2,310	1,020	951	404	141	3	50	282	634	65.15	63.47	51.06	66.30	72.72	4.03	31.45	56.00	46.53
13. Hernia	160	82	89	25	15	3	9	35	68	3.10	5.10	4.77	4.10	7.74	4.03	5.66	6.95	4.99
14. Influenza	872	439	761	128	57	31	22	226	344	24.59	27.32	40.85	21.00	29.40	41.67	13.84	44.88	25.25
15. Insolatio (Hitzschlag, coup de chaleur)	5	4	9							.14	.25	.48						
16. Luxationes articulorum	961	592	586	204	42	14	24	56	293	27.10	36.84	31.45	33.48	21.66	18.82	15.09	11.12	21.50
17. Meningitis cerebrospinalis epidemica	2	3	3		1			1	10	.06	.19	.16		.52			.20	.73
18. Morbilli	213	44	134	42	7		5	54	815	6.01	2.74	7.19	6.89	3.61		3.14	10.72	59.82
19. Parotitis epidemica	98	19	68	7	3		4	24	66	2.76	1.18	3.65	1.15	1.55		2.52	4.77	3.45
20. Pleuritis	147	59	45	26	9	2	5	22	21	4.15	3.67	2.42	4.27	4.64	2.69	3.14	4.37	4.84
21. Pneumonia crouposa sive lobaris	69	37	26	11	2	1	1	11	47	1.95	2.30	1.40	1.81	1.03	1.34	.63	2.18	1.54
22. Rheumatismus articulorum	210	108	120	24	9	4	3	27	60	5.92	6.72	6.44	3.94	4.64	5.38	1.89	5.36	4.40
23. Scarlatina	11	5	6	2			1	6	17	.31	.31	.32	.33			.63	1.19	1.25
24. Scorbutus																		
25. Syphilis	929	330	333	117	54	9	33	82	232	26.20	20.54	17.87	19.20	27.85	12.10	20.75	16.28	17.03
26. Trachoma	10	1	1						1	.28	.06	.05						.07
27. Tuberculosis pulmonum[2]	119	36	50	16	6	1	5	36	42	3.36	2.24	2.68	2.63	3.09	1.34	3.14	7.15	3.08
28. Tuberculosis ceterorum organorum	14	1	6	1				4	6	.39	.06	.32	.16				.79	.44
29. Typhus abdominalis	3	8	3	1				1	4	.08	.50	.16	.16				.20	.29
30. Typhus exanthematicus																		
31. Ulcus molle	1,247	337	269	182	49	8	14	88	133	35.17	20.97	14.44	29.87	25.27	10.75	88.05	17.47	9.76
32. Variola		1									.06							
33. Morbi auris	250	126	115	51	11	2	3	33	92	7.05	7.84	6.17	8.37	5.67	2.69	1.89	6.55	6.75
34. Morbi cordis[3]	42	35	32	9	3	3	4	11	27	1.18	2.18	1.72	1.48	1.55	4.03	2.52	2.18	1.98
35. Morbi cutis[4]	925	404	552	176	44	6	16	68	261	26.09	25.14	29.63	28.88	22.69	8.06	10.06	13.50	19.16
36. Morbi mentis	116	64	67	21	10	1	4	32	54	3.27	3.98	3.60	3.45	5.16	1.34	2.52	6.35	3.96
37. Morbi oculi	373	197	218	39	25	10	17	55	109	10.52	12.26	11.70	6.40	12.89	13.44	10.69	10.92	8.00
38. Morbi systemat. urin et sexual (excluding venerie et syphilis)	411	218	179	73	26	7	17	73	161	11.59	13.57	9.61	11.98	13.41	9.41	10.69	14.50	11.82

NTERNATIONAL TABLE IX.—*Deaths by rank, by length of service, and by age, 1916.*

Causes of death.	Total number of deaths (enlisted men).		Deaths by rank and length of service.				Deaths by age.					
	Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and over.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
hs from sickness	274	2.59	78	50	30	116	22	67	44	22	20	21
Soldiers present with troops	181	1.71	45	39	19	78	18	50	25	15	14	14
Soldiers absent from troops	93	.88	33	11	11	38	4	17	19	7	6	7
dental deaths	199	1.88	39	30	49	81	18	81	32	21	4	4
Soldiers present with troops	169	1.60	34	25	43	67	16	71	24	16	4	4
Soldiers absent from troops	30	.28	5	5	6	14	2	10	8	5	....	....
ides	62	.59	17	7	13	25	2	21	11	6	5	....
Soldiers present with troops	51	.48	14	5	11	21	1	19	10	4	3	....
Soldiers absent from troops	11	.10	3	2	2	4	1	2	1	2	2	....
Total	535	5.06	134	87	92	222	42	169	87	49	29	25

ERNATIONAL TABLE X.—*Discharges from the Army, for physical disability, temporary or permanent, by rank, length of service, and by age, 1916.*

Causes of discharge.	Total discharged (enlisted men).		Rank and length of service.				Age.					
	Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and over.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
sical disability existent prior to listment	828	7.83	14	468	193	153	115	466	171	50	7	5
sical disability incident to service	662	6.26	99	103	160	300	30	262	136	83	31	21
sical disability not incident to vice	199	1.88	16	44	37	102	10	88	45	20	16	4
Total	1,689	15.98	129	615	390	555	155	816	352	153	54	30

Very respectfully,

W. C. GORGAS,
Surgeon General.

The SECRETARY OF WAR.

VITAL STATISTICS INDEX.

The following tables show in detail most of the statistical dat upon which the statements in this report are based:

66. Surgical operations performed on American troops.

67. Numerical view of the effect of disease and injury on United States troo serving at home and abroad in the year 1915, compared with the corresponding da for the year 1914, by races.

68. Admissions to sick report, discharges and deaths in the Army, with ratios p 1,000 of mean strength, in which all available data for the decade ending Decemb 31, 1914, are placed in comparison with the year 1915.

68½. Admissions to sick report, discharges, deaths, and noneffectiveness, wi ratios per 1,000 of mean strength, for the Army; separately for officers, total enlist (including American, Porto Rican, and Philippine troops), and grand total, ye 1915.

69. Admissions to sick report, discharges, deaths, and noneffectiveness, wi ratios per 1,000 of mean strength, for the Army; officers, total enlisted Americ troops, and grand total, year 1915.

70. Admissions to sick report, discharges, deaths, and noneffectiveness, with rati per 1,000 of mean strength, for the Army, American troops, total enlisted, and sep rately for white and colored.

70½. Admissions to sick report, discharges, deaths, and noneffectiveness, wi ratios per 1,000 of mean strength, for the United States, continental (excluding Alask separately for officers and enlisted men, and the grand total.

71. Admissions to sick report, discharges, deaths, and noneffectiveness, with rati per 1,000 of mean strength, for the year 1915, United States, continental (excludi Alaska), total enlisted, white and colored; and separately for the white and color troops (enlisted) serving therein.

71½. Admissions to sick report, discharges, deaths, and noneffectiveness, with rat per 1,000 of mean strength, for the officers separately; total enlisted, including Phil pine Scouts; and total officers and enlisted men, including Philippine Scouts, servi in the Philippine Islands, for the year 1915.

72. Admissions to sick report, discharges, deaths, and noneffectiveness, with rat per 1,000 of mean strength, for total American troops, enlisted men, white and color and separately for white and colored American enlisted men serving in the Phil pine Islands, year 1915.

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REPORT OF THE SURGEON GENERAL OF THE ARMY.

A. LETTER OF TRANSMISSION.

I have the honor to submit herewith the one hundred and first annual report of the Surgeon General of the Army, covering statistically the calendar year 1917 and the fiscal year ending June 30, 1918.

The period embraced by this report has been one of the most memorable in the history of our country and has witnessed the unparalleled and successful activities of the War Department and the Nation, by means of which the Army of the United States, consisting of a few hundred thousand, has been speedily increased to one of several millions, well equipped and skillfully transported overseas, to take its part with Great Britain, France, Italy, and their allies against the foes of democracy and peace.

At the time of the active entrance of the United States into the great war (Apr. 6, 1917) the Medical Department of the Army had less than a thousand trained commissioned officers and a proportionate number of enlisted men. To-day it has a larger personnel than the entire Army had two decades ago at the outbreak of the Spanish-American War, and is fully prepared in all respects to meet the professional demands of the great armies now actually engaged at the front and in training in this country and abroad.

The Medical Corps of the Army has had from the first the active patriotic and unselfish cooperation and support of the medical profession of the United States. This has made possible the organization of a medical service which, for completeness of detail, from the first-aid station on the firing line to the reconstruction hospitals at the base, has rarely, if ever, been excelled.

In inaugurating and perfecting this highly specialized and technical corps, the Medical Department, or medical profession of the United States—the terms are now practically synonymous—has been assisted in the greatest measure by many associated societies and corporations (the American Red Cross, the Y. M. C. A., the Knights of Columbus, the Young Men's Hebrew Association, and others) who have patriotically devoted their great influence to the welfare and humanitarian interests of the fighting forces. The important service being rendered by the organizations mentioned and similar ones, both at home and abroad, is one of the fine features of the war, illustrating as it does the universal interest of the people in the support and protection of the armies of the country and the determination of the Nation that nothing shall be left undone to insure the successful prosecution of this world-wide conflict.

No feature of the preparatory phase of the war has been more important than the various schools for the intensive training of candidates for commissions.

Three such schools for the training of medical officers have been in existence during the year past, at Fort Oglethorpe, Fort Riley, and Fort Benjamin Harrison. All have proved their great value in preparing the physicians direct from civil life for the varied and unaccustomed duties of the medico-military practitioner and administrator.

The courses given at these training camps have been thoroughly and systematically carried out by competent instructors and earnestly and enthusiastically followed by the student officers, who have been prompt to recognize the necessity and advantage of special instruction in the great field relating to the care and protection of troops in camp and in campaign.

The health of the Army both at home and overseas has been excellent and lower probably than in any similar body of troops in the history of warfare.

Infectious diseases—measles, scarlet fever, pneumonia, epidemic meningitis—prevailed during the winter months in the various cantonments and were, as a rule, well handled, with the minimum of mortality, considering the serious character of the diseases and the necessary circumstances of rapid mobilization.

Venereal disease has been vigorously dealt with, as heretofore, in the Army. Special legislation and earnest measures taken by civil communities adjoining camps and cantonments, under the direction of the Federal authorities, have been potent means of controlling this menace which, as often stated before, originates, with rare exceptions, entirely outside the jurisdiction of the military authorities.

The first considerable body of expeditionary troops to Europe, comprising about a division of Regulars, arrived in France in May, 1917. They were preceded by certain Medical Department units, constituting an advance force of the American Army.

Since then there has been a steady flow of men and munitions across the Atlantic, and at this time an Army of a million and a half is fighting successfully on French soil. The work of the officers and men of the Medical Department overseas, under the skilled leadership of experienced and highly efficient chief surgeons, has elicited and deserved the highest praise.

The same can be fairly said of those who have remained in the United States performing faithfully and well the all-important tasks assigned to them of organization, supply, and training.

Speaking more in detail, the mean strength of the Army at the beginning of 1917 was only 217,272 officers and men, all branches included. By December, 1917, it had risen to 1,538,203 officers and men. Since December 31 the increase in the size of the Army has continued.

The mobilization of the National Guard, the concentration and the hurried recruiting of the Regular forces, the mobilization of the National Army, the great force of drafted men suddenly called from home life to new environments—all these conditions have required great expansion of the Medical Department, with the application of the total professional knowledge of the country to the vast and relatively new sanitary problems involved.

The mobilization of such a large number of men has required a large amount of work for the physical examinations. Making physical examinations on so great a scale was a new experience for most of the physicians engaged. There were not in this country enough medical men of proper training to do the work adequately. It was very often necessary for medical officers to examine many more men during a given period of time than could be done by them with the proper degree of care. This was a military necessity. It was necessary to assemble such a large number of men in a short space of time and to examine them promptly.

During the first few months the work of making the physical examinations at the camp was on a basis of emergency work. It was done by a hastily assembled and frequently changing personnel. The examinations were conducted in any sort of a building that could be spared from the pressing need of shelter for troops or of anticipated medical need.

Consequently, it must be recognized that it was impossible for the number of experienced men available under the conditions as they existed to make the examinations of the number of men required properly in the time allotted so as to exclude all diseases or detect all defects.

Consequently, many men were inducted into the military service with diseases or defects undetected and unnoted. Hence the opinion that has frequently been advanced that because a man has been passed by his local board, advisory board, and the board at the mobilization camp, he was of necessity physically sound when he entered the military service is open to very serious criticism.

The work at the various camps and military posts in preventive medicine and the medical care of the sick or injured has required a large amount of work.

The following tabulation shows the expansion in brief of the Medical Department:

	June 30, 1917.	June 30, 1918.
Medical Corps, including Medical Reserve Corps	4,125	23,274
Dental Corps, including Dental Reserve Corps	86	2,977
Veterinary Corps, commissioned officers	57	1,539
Sanitary Corps	....	1,159
Army Nurse Corps	1,176	12,186
Enlisted Medical Department, all branches	16,773	153,295

A large number of hospital buildings in this country and abroad have been built, organized, and equipped. The bed capacity in hospitals in the United States available at the present time is 73,066. In addition to this number, 16,799 additional bed capacity is now under construction.

Reports of the various divisions of the Surgeon General's Office are to be found in the body of the report. In addition to the reports of the various divisions is a short report of the American Red Cross. While the American Red Cross, as it is needless to say, is not attached to the Surgeon General's Office, still, so much assistance has been rendered by this organization that a short summary of its work in connection with the Medical Department was thought desirable.

The necessity of military secrecy renders it advisable to include only a brief discussion of the work of the Medical Department with the American Expeditionary Force.

In the report of the Division of Sanitation will be found a brief discussion of some of the infectious diseases with a limited statistical discussion of the health of the Army for the first few months of 1918.

Speaking now of the calendar year 1917, the health of the Army was satisfactory. Had it not been for the extensive epidemics of infectious diseases which occurred in the camps throughout the country, and especially in the southern camps, and more especially among the southern troops in the southern camps, the figures would have been very satisfactory.

Many of the camps have been visited by epidemics of these diseases more or less peculiar to great aggregations of men. During the period a large number of men was assembled in our camps and held for extensive training, and some were sent overseas. These men came from every section of the great country, from every class, without reference to previous social status, educational qualifications, or personal habits. They came from infected and uninfected localities. Immunes, susceptibles, infected, have been brought together in the close contact that is a necessity in every military organization. To accomplish this great task without more or less spread of infection was an impossibility. Fortunately, advances in general sanitation, in water purification, in garbage and sewage disposal, in protective measures against typhoid fever by vaccinations, have largely eliminated from armies the intestinal diseases.

If the morbidity from typhoid fever had been as great in the Army during the year 1917 as during the Spanish-American War for each 1,000,000 men there would have been 140,000 cases and 1,400 deaths. Actually, the mean annual strength of the Army was 678,579. Thus there would have been expected 136,000 cases and 13,600 deaths. As it was, there were 297 cases and 23 deaths. The insanitary conditions seen at Camp Alger, at Jacksonville and Chickamauga in 1898 do not exist in the country to-day.

It was seen long before the assembly of troops had been begun that the acute respiratory diseases would be the greatest factors in morbidity and mortality. With this in view this office insisted that at least 45 feet of floor space and 500 cubic feet of air space should be allowed each soldier. It was necessary, however, for military reasons, these reasons being, namely, the urgent necessity of assembling, organizing, and equipping as large a force as possible of men in the given period of time, to overcrowd the facilities of the camps. Many of the deaths from the diseases to be discussed could, no doubt, have been prevented if the country and the department had been willing to purchase that advantage by delaying the calling and training of the soldiers until thoroughly satisfactory arrangements for clothing, housing, and caring for them had been matured. But such an advantage would have been dearly purchased if it had protracted the war or diminished the chance of a successful outcome. It is necessary to realize that to diminish the great loss upon the field of battle which would result from the delayed organization of the military forces of this country we must be prepared to accept a certain increased loss from deaths from infectious diseases that occur as a result of overcrowding the camps in this country.

Pneumonia, whether primary or secondary, caused approximately 65 per cent of the deaths from all causes in the United States. A large number of these deaths from pneumonias have been charged to measles, with which disease these pneumonias were complications. This places measles at the head of the list of the causes of deaths from disease in the United States for the year 1917. The international rule for the classification of deaths has been followed.

A large proportion of the infectious diseases, especially the pneumonias and measles, occurred in southern camps among southern troops. We find that the same conditions existed during the Civil War. While the northern troops suffered from epidemics of both pneumonias and measles the morbidity and mortality of these diseases was much more extensive among the southern troops.

The general admission rate for diseases for enlisted men serving in the United States for the year 1917 showed an increase over the corresponding rate for 1916. The rate in 1917 was 886.81, being an increase of 270.70 over the year 1916.

The death rate in 1917 also showed an increase over the corresponding rate for 1916 for diseases for enlisted men in the United States. In 1917 the rate was 5.34, which is an increase of 2.56 over that for 1916. An examination of the tables in the body of the report shows that for the special infectious diseases, namely, broncho-pneumonia, lobar pneumonia, measles, and cerebrospinal meningitis, the death rate for 1917 was 3.93. The corresponding death rate for these diseases in 1916 was 0.72. The increase, consequently, for the year 1917 over the year 1916 for these diseases was 3.21 per 1,000. Had this great increase not occurred in 1917, the death rate for diseases would have actually been less in 1917 than in 1916. Excluding these diseases the figures would then have been 1.41 for 1917 and 2.08 for 1916 per 1,000. It is shown also by an examination of the tables that in camps the death rate for the diseases mentioned was 5.59 per 1,000, while the corresponding rate for posts other than the large camps was 2.50. Thus, the death rate in the camps for these special infectious diseases was more than twice as high as for posts other than the camps.

In the same way as the death rate was increased in the camps so in a like manner though not in a corresponding degree the admission rate was increased.

The discharge rate for disability for enlisted men serving in the United States was considerably increased in 1917 over the corresponding rate for 1916. The chief surgeon, Western Department, remarks: "The hasty and superficial examinations given by inexperienced and indifferent medical examiners to applicants for enlistment, immediately following the declaration of war, is reflected in the enormous increase in discharges for disability existing prior to enlistment."

It was the opinion of the medical officers who signed the certificate of discharge for disability of the 15,882 such recommendations in the United States during 1917, that 14,774 were not in line of duty, and only 1,108 were in line of duty.

The noneffective rate for diseases, that is, the number of men absent each day from duty on account of diseases per 1,000 in the United States for 1917, showed a decrease from the year 1916, the rate in 1917 being 22.21 as compared with 26.30 in 1916.

For the American Expeditionary Forces the health conditions were entirely satisfactory. Since there was comparatively little fighting there were only a few deaths as a result of battle injuries.

In the tropical countries where American troops were serving the health rates were all satisfactory.

B. HEALTH OF THE ARMY.

A Comparative Study, 1820–1917.

The word health, like the word life, is almost indefinable. If ife be, as it has been said to be, the sum or resultant of the forces esisting death, health might be defined as the sum or resultant of he forces resisting sickness. The human individual passes through life cycle at some early stage of which normally the tide of life runs igh and health is at a maximum and at the end of which health anishes and death comes. We might conceive the period between hese limits as divided into grades from a maximum of 100 down to ero. But no method of measuring these grades in the individual or he group has been discovered or is in sight. In other words, we have o direct means of measuring health, individual or communal, and re compelled, therefore, to rely upon indirect or roundabout methods.

In a civilian population the usual or standard indirect method of neasuring community health is by the death rate or the proportion f deaths to the average population in a given period like a year. But n army differs in important respects from a normal civilian population. It is a selected group, admission to which depends upon the esult of a careful medical examination and withdrawal from which ccurs sometimes by death and sometimes by discharge. A common eason for the discharge is impaired health. The death rate in the rmy must be considered with constant reference to both of these cts. To get a true rate it would be needful to follow the lives of ersons discharged from the Army and include all deaths among hem occurring after discharge as a result of health impaired during he period of service. Under existing conditions this can not be one. On the other hand, Army men are supervised so closely that t is possible among them, as it is not among civilians, to get other ndirect measures of health than the death rate. We can determine he grade or stage of impaired health at which a man is laid off duty nd admitted to sick report in quarters or hospital, and get the number of men admitted to sick report each month or year. We can get lso the number of men discharged from the Army because of disability resulting from disease and the number of men each day who re sick in quarters or hospital. The strength of a post or command r the day is reported by the adjutant as the sum of those present nd those absent from duty. From these daily reports of strength e mean strength for the month or the year is derived. By comparing the returns of deaths or sickness with those of mean strength we n get the proportion of the former to the latter in four forms—the roportion of deaths, the proportion of men admitted to sick report, e proportion discharged from the Army because of disability, and e proportion constantly sick in quarters or hospital.

Thus our means of measuring the health of the Army are much ller and more satisfactory than our means of measuring the health f the civilian population. The most important means are (1) the eath rate; (2) the rate of admissions to sick report; (3) the rate of ischarge from the Army because of disability; (4) the noneffective rate. Subsidiary ways of measuring or investigating the health of the Army are by analyzing the death rate, admission rate, and case fatality rate of the more troublesome diseases and causes of death. In using any of these methods a comparison between Army figures for one time or place and those for another time or place is probably safer and more illuminating than a comparison between Army figures and those for any civilian population. To make the comparison in both forms, however, is better than to rely exclusively on either.

In military statistics it is customary to divide the Army into two groups, the commissioned officers and the enlisted men and noncommissioned officers, and to restrict ordinary health statistics to the latter class. This procedure has been indorsed by international commissions and will be followed in the present report. Unless otherwise stated the figures for the Army will be understood to apply only to the group of enlisted men and noncommissioned officers, but to embrace all branches of the Army, including Porto Ricans and Philippine Scouts.

Whether in a civilian population the death rate is or is not a significant index of community health depends upon the question whether the ratio between the number of deaths and the amount of sickness in the population changes little or much from one year to another and varies little or much in different communities or other classes under examination. It is customary to assume that this ratio changes little from time to time or place to place. The assumption has sometimes been put as follows: On the average, to every death in the general population there are about two years of sickness, including the cases ending in recovery along with those ending in death. The evidence in support of this assumption is meager and inconclusive largely because of the difficulty in defining and measuring the amount of sickness in the general population. Under the careful supervision to which soldiers are subject these difficulties are reduced to a minimum and it becomes far easier in the Army than in the general population, to measure the ratio between sickness and death and to determine whether that ratio remains approximately the same from year to year either at two years of sickness to each death or at any other figure. To answer the question it is well to disregard on one side admissions to sick report due to accidents or injuries and on the other side deaths due to such causes and to limit its comparison to one between the amount of sickness proper and the number of deaths from disease. That has been done in the following table for the 10 years of peace, 1907–1916, and for the anomalous year 1917 to which the present report relates.

TABLE NO. 1.—*Years of sickness, deaths from sickness, and years of sickness to each death in the United States Army (American troops) annually, 1907–1917.*

Year.	Years of sickness.	Deaths from sickness.	Years of sickness to one death.
1907	2,131	189	11.3
1908	2,371	235	10.1
1909	2,647	228	11.6
1910	2,183	175	12.5
1911	2,054	194	10.6
1912	1,991	189	10.5
1913	1,617	210	7.7
1914	1,720	208	8.3
1915	1,993	246	8.1
1916	2,322	258	9.0
Average	2,103	213	9.9
1917	14,359	3,257	4.4

Table 1, shows that on the average in time of peace there were about 10 years of sickness in hospital or quarters to each death and that the range during the decade was between 7.7 and 12.5 years. There is little evidence here to support the theory that sickness and death in the Army stand in a constant ratio to each other. It does show, however, that the ratio of sickness to death in the Army is much larger than in civil life. For this two reasons may be suggested. Many disabled soldiers are discharged for disability and when they die the deaths do not appear on that side of the ratio. Many soldiers are invalided in hospital or quarters who if in civil life and drawing wages would keep at work under like conditions. Thus the differences between soldiers and a normal group of civilians tend in time of peace to bring down the number of deaths among soldiers and to bring up the amount of reported disease among them. The unusual figures in 1917 show that the number of deaths in that year increased much faster than the amount of sickness, probably because many of the deaths were preceded by an unusually short period of reported sickness.

I. THE HEALTH OF THE ARMY NOW AND FORMERLY.

1. DEATH RATES SINCE 1820.

The death records of the American Army began in 1819, an earlier date than the beginning of the death records of any other army except the British, which go back to 1816, an earlier date also than the beginning of the death records of any American State. From that date the death records of the Army in time of peace make an almost unbroken series, the only missing years being 1833, 1834 and 1836, but the death records for the period of the Mexican War and the Civil War are also lacking or incomplete so that it was not until the Spanish-American War, at the end of the last century, that the Army's death records in time of war became trustworthy.

The following table and diagram show the general trend of change in the Army death rates since 1819.

TABLE No. 2.—*Death rate in United States Army (American troops) per 1,000, mean strength by decennial periods 1820–1909 and single years 1910–1917.*

Decade.	Decennial death rate.	Year.	Annual death rate.
1820–1829	33.6	1910	4.5
830–1839[1]	22.9	1911	4.8
840–1849[2]	20.9	1912	4.8
850–1859	25.2	1913	4.9
860–1869[3]	23.4	1914	4.5
870–1879	15.3	1915	4.6
880–1889	9.4	1916	5.2
890–1899	9.9	1917	6.8
900–1909	7.7	1910–1917 (average)	4.9

[1] Returns for 1833, 1834, 1836 not obtainable.
[2] Returns for 1847, 1848 (period of Mexican War) omitted as not reliable.
[3] Returns for 1862–66 inclusive (period of Civil War) omitted as not reliable.

Table 2 and Chart 1 show that the Army death rate in time of peace was highest in the first decade, 33.6 per 1,000, and lowest in the last eight years, 4.9 per 1,000, or about one-seventh of what it was 90 years before, and that in the intervening period the decrease was almost unbroken. In the early decades of the last century belonging to the Army even in time of peace was a highly dangerous occupation. This reduction of the death rate by six-sevenths reflects and to some degree measures the progress made in 90 years in protecting the health of men closely crowded together under Army conditions.

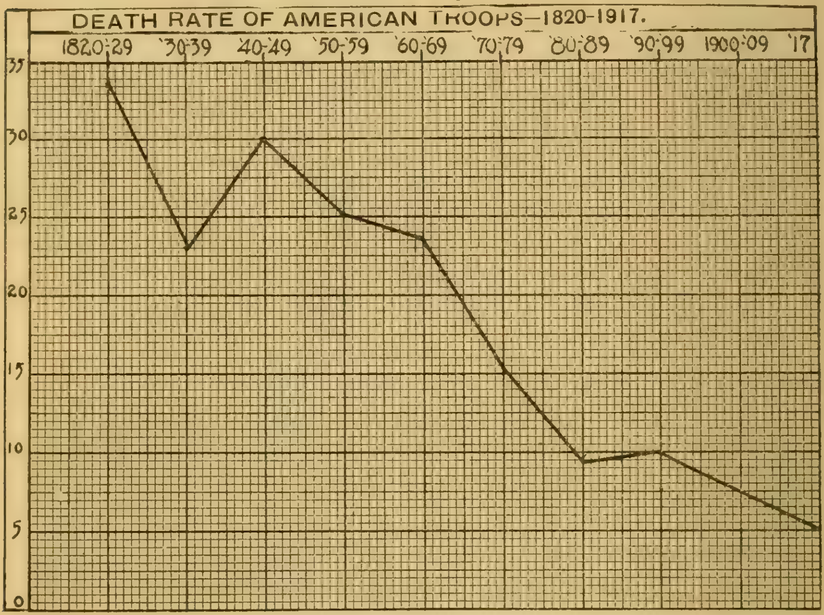

Chart No. 1.

It would be interesting to compare this decrease in the death rate in the American Army with the decrease during the same period in the death rate of the population of the United States or of any American States, but unfortunately comparable civilian records for the whole period do not exist. The best comparison would be with the male population of the age of enlisted men. The average age of enlisted men in the Army before its recent expansion was about 26.7 years. For a group of male civilians with which to compare them we must choose between those 20 to 29 years of age and those 20 to 34 years of age. The average age of the former in the United States in 1910 was 24.9 years and of the latter 27.1 years. Hence the best civilian age group to select is males, 20 to 34 years of age. But we do not know the death rate of this group in the United States as a whole for any date or in any large and representative part of the United States for any date before 1900. The best group to use for recent years is the males, 20 to 34 years of age, in the registration States of 1900. The death rate of this group was 7.8 per 1,000 in 1900, while the Army death rate in that year was 16.6 per 1,000, more than twice as great, an excess due mainly to the after effects of the Spanish-American War and to the disorders in the Philippines.

But the death rate of the civilian group in 1910 was 6.4 and of the Army 4.5 per 1,000, the latter being about seven-tenths of the civilian rate.

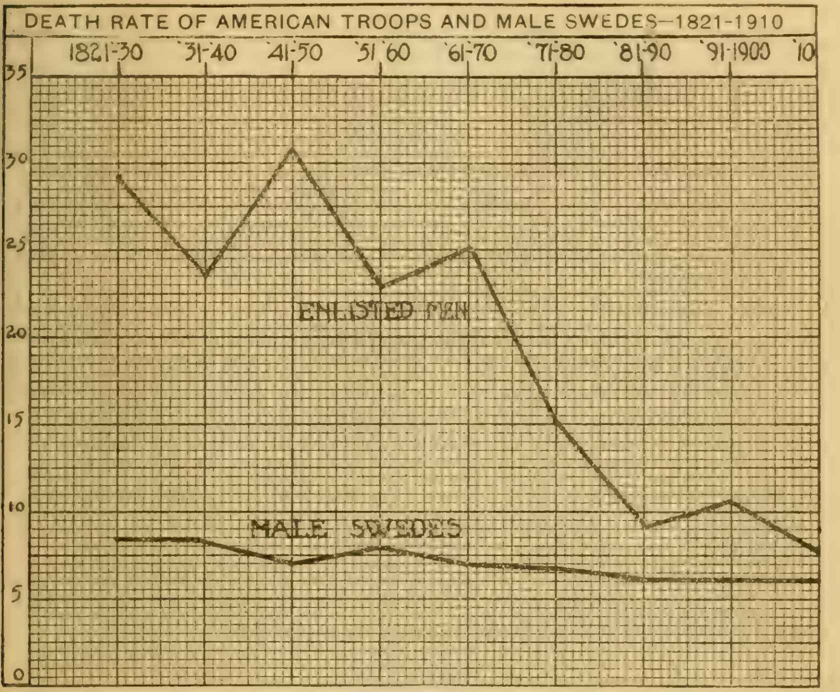

CHART No. 2.

The dearth of American civilian death rates for decades before 1900 can be met by recourse to the figures for males in Sweden, a country which has often been used as a standard. But in doing this we have to choose between two groups of males, those 15 to 34 years of age and those 25 to 34 years of age, for in the source at hand they are the only ones given. Naturally the former group has been preferred. The following table and diagram (Table 3, Chart 2) show the death rates of males 15 to 34 years of age in Sweden and of the American Army at various dates and the ratios of the latter to the former.

TABLE No. 3.—*Death rate United States Army (American troops) per 1,000 mean strength compared with death rate of Swedes, 1821–1910.*

Period.	Death rate of male Swedes 15 to 34 years of age.	Death rate in United States Army (American troops).	Ratio of Army death rate to that of Swedes = 100.	Period.	Death rate of male Swedes 15 to 34 years of age.	Death rate in United States Army (American troops).	Ratio of Army death rate to that of Swedes = 100.
1821-1830	8.5	29.1	343	1871-1880	6.7	15.1	227
1831-1840	8.4	23.5	281	1881-1890	6.1	9.1	150
1841-1850	7.2	30.8	429	1891-1900	6.0	10.7	168
1851-1860	7.9	22.9	291	1901-1910	6.1[1]	7.9	130
1861-1870	6.9	25.1	366				

[1] Estimated because the Swedish figures from the census of 1910 are not at hand.

From the beginning of the United States Army's death records to the end of the nineteenth century its death rates were greater than those of the males 15 to 34 years of age in the extremely healthy Swedish population at the same date. The death rate in each population group sank with little interruption during these 80 years, but that in the Army much faster than that in Sweden. As a result in the early decades the Army death rate was more than three times that of the Swedish group, at the end of the century the difference was less than half as great, and for the seven years 1911–1917 the American Army death rate (see Table 2) was less than that of males 15 to 34 years of age in Sweden for any period of which we have record. Apparently the death rate of the American Army now in time of peace is about the same as that of male Swedes 15 to 34 years of age, and less than that of males 20 to 34 years of age living in the registration States.

Table 2 (American troops only) also gives a clue to the number of deaths in 1917 which can fairly be ascribed to the abnormal conditions of that year. The lowest recorded death rate in the Army, including officers and enlisted men and Porto Ricans and Philippine Scouts as well as American troops, was 4.39 per 1,000 in 1910. If this death rate be applied to 678,579, the mean strength of the Army in 1917, it indicates that 2,979 deaths would have occurred had the minimum death rate prevailed. The difference between this computed number and the number of deaths which actually occurred is 1,180, and this is apparently an approximate measure of the number of deaths in 1917 above the normal and so of the loss of life attributable to the unfavorable conditions resulting from the sudden and enormous expansion of the Army between March, 1917, and January, 1918.

2. RATES OF ADMISSION TO SICK REPORT SINCE 1820.

When anyone in the Army is physically unable to report for duty he is enrolled as sick. The decision whether he is or is not sick is made in the first instance and ordinarily by himself in applying for exemption from duty. It is then reviewed by the medical officer, who may decide that he is able to do duty but who probably in most cases accepts the man's judgment. If the man is adjudged sick, he may be allowed to remain in quarters or he may be sent to the hospital. Which course is taken depends upon many considerations. Probably the line between those who are and those who are not admitted to sick report is drawn at various posts and in successive years with greater uniformity than the line between those who are admitted to hospital and those who are treated in quarters. For this reason the number and proportion of those admitted to sick report is a safer index of health than the number and proportion of those admitted to hospital. The unit in this tabulation is the admission not the person admitted, a fact which explains why the rate so often runs above 100 per cent.

Persons admitted to sick report fall into two main classes, those whose condition is due to external agents, producing accidents or wounds, for which the medical and sanitary authorities of the Army ordinarily have no responsibility, and those suffering from various diseases. The proportion of admissions to sick report for disease is probably a better index of health conditions than the proportion of admissions to sick report for all causes, but in the early annual reports of the Surgeon General the distinction between these two classes was disregarded. The figures of Table 4, therefore, refer to admissions for all causes.

TABLE No. 4.—*Rate of admission to sick report in United States Army (American troops) per 1,000 mean strength by decennial periods, 1820-1909, and single years, 1910-1917.*

Decade.	Decennial rate of admission to sick report.	Year.	Annual rate of admission to sick report.
1820-1829	2,489	1910	950
1830-1839 [1]	2,585	1911	936
1840-1849 [2]	2,935	1912	824
1850-1859	2,853	1913	672
1860-1869 [3]	2,609	1914	666
1870-1879	1,838	1915	745
1880-1889	1,508	1916	748
1890-1899	1,429	1917	975
1900-1909	1,388	1910-1917 (average)	814

[1] Information for 1833, 1834, and 1836 not obtainable.

[2] Statistics during the period of the Mexican War, 1847 and 1848, not reliable.

[3] Statistics during the period of the Civil War, 1862-1866, not reliable.

Table 4 shows that the health of the Army measured by the proportion of sick has been steadily and rapidly improving since the middle of the nineteenth century and thus supports and confirms the conclusion already drawn from Table 1. The improvement measured by the proportion sick is less than the improvement measured by the death rate; the average rate of admission to sick report between 1910 and 1917, inclusive, being a little more than one-fourth of the maximum while the death rate in the same period was only one-seventh of the maximum. In another respect also the results of the two measurements differ; the highest death rate was in the twenties and the highest sickness rate in the forties of the nineteenth century. The most striking coincidence in the two tables is found in the steady and rapid decrease both of sickness and of death in the Army since the sixties, probably due to various sanitary improvements growing out of discoveries in the germ theory of disease.

3. RATES OF DISCHARGE BECAUSE OF DISABILITY SINCE 1820.

A soldier who has been certified by a medical officer to be permanently incapacitated for military service is examined by a board of medical officers and on the basis of its report is or is not discharged because of disability. In the older records of the War Department the distinction between disability due to disease and disability due to external causes was disregarded and for that reason in the following table all discharges for disability are included. But during the five years, 1912-1916, of all discharges for disability nearly nine-tenths were due to disease and only about one-tenth to external causes. So the changes in the total discharges shown by Table 4 would probably be much the same if the discharges due to external causes were excluded.

TABLE NO. 5.—*Rate of discharge for permanent disability in United States Army (American troops) per 1,000 mean strength by decennial periods, 1820–1909, and single years, 1910–1917.*

Decade.	Decennial rate of discharge.	Year.	Annual rate of discharge.
1820–1829	26.6	1910	14.0
1830–1839 [1]	29.4	1911	13.9
1840–1849 [2]	32.1	1912	13.4
1850–1859	23.1	1913	13.2
1860–1869 [3]	19.1	1914	13.0
1870–1879	31.0	1915	14.3
1880–1889	31.9	1916	16.5
1890–1899	15.5	1910–1916 (average)	14.0
1900–1909	22.3	1917	27.6

[1] Information for the four years 1833, 1834, 1836, and 1837 not obtainable.
[2] No reliable statistics for the Mexican War period, 1847 and 1848.
[3] No reliable statistics for the Civil War period, 1861–1866.

The discharges due to permanent disability remained until after 1890 at about a constant rate or certainly with no tendency to a steady decrease. Examination of the figures for single years[1] shows that the Spanish-American War was accompanied and followed through several years by a high discharge rate. The rates for 1895–1897 averaged below 10 and were the lowest on record; they were followed by a rate of 11.6 in 1898 and 27.4 in 1899; for eight years thereafter the rate did not fall below 20. It seems likely that many persons were then taken with the Army who under ordinary conditions in time of peace would have been rejected as below the physical standards and that a considerable proportion of them, after being accepted, could not meet the exacting demands of army life. The sharp increase in the proportion of men discharged for disability in 1917 when it was almost double what it had been on the average during the preceding seven years confirms this theory. Probably many men volunteered or were summoned for examination and were passed as physically sound by the various boards who would not have been accepted if the pressure to get men and the little time available for examining each man had not combined to lower the standard actually used by the examining authorities.

4. NONEFFECTIVE RATES SINCE 1870.

The noneffective rate means the average number of men off duty per 1,000 mean strength. It is found by dividing the total time in days within the year of the enlisted men who were off duty because of ill health by the number of days in the year to get the average number of persons off duty on any day and dividing this quotient by the mean strength to get the rate.

Noneffectiveness is of two kinds, one in which the cause is disease, another in which the cause is a wound or other injury. As the duty of the medical force centers about protection from disease, probably the noneffective rate due to disease would be the better form to use as a measure of the health of the Army, but because in earlier reports the two kinds of noneffectiveness were not invariably distinguished they have been treated together in this paragraph. The figures for noneffectives, unlike those previously reviewed, run back only to the years just after the close of the Civil War.

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[1] Report of the Surgeon General, 1913, p. 25.

TABLE NO. 6.—*Noneffective rate in United States Army (American troops) per 1,000 mean strength by decennial periods, 1870–1909, and single years, 1910–1917.*

Decade.	Decennial noneffective rate.	Year.	Annual noneffective rate.
1870–1879	46.2	1910	35.9
1880–1889	43.4	1911	33.3
1890–1899	45.9	1912	30.1
1900–1909	52.8	1913	24.3
		1914	24.0
		1915	25.9
		1916	28.0
		1917	25.2
		1910–1917 (average)	28.3

Table 6 shows that there was no decrease but perhaps a slight increase in the noneffective rate between 1870 and 1910. An examination of the rates for single years [1] shows the maximum rate (828 per 1,000) was in 1898 and that it fell from that figure almost without interruption until 1914 when it was less than one-third of what it had been 16 years earlier and below the rate of any previous year.

We may state the results from this analysis of changes in the health of the Army in the following conclusions:

1. The death rate has been falling from the first and practically without interruption.
2. Sickness measured by the admissions to sick report has been falling since the forties.
3. Permanent disability leading to a discharge from the Army increased sharply at the time of the Spanish-American War.
4. Noneffectiveness leading to temporary exemption from active duty also increased sharply in the same period.
5. The former but not the latter increased notably in 1917 indicating that both of these forms of imperfect health become much more common in the Army in time of war.

All four methods of analysis concur in indicating that during the period between 1910 and the entrance of the United States into the present war the health of the Army was better than at any previous period.

5. MONTHLY VARIATIONS IN THE HEALTH OF THE ARMY IN 1917.

That the results reached by different methods of testing the health of the Army do not agree in detail but do have a general similarity has already been made clear. In dealing with more special problems it seems hardly worth while to use all of these methods and if that is not to be done a selection must be made. On the whole and for the purposes of this report the death rate seems to be the best single test of the Army's health. It is better understood by the public and the sources of error in this field seem less important than in the others. Holding this view the further study of health in the army will stress this method of measurement.

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[1] Report of the Surgeon General, 1913, p. 20.

The calendar year 1917 was occupied mainly with preparations for the participation of the United States in the great war which had been forced upon her. The mean strength of the Army in January, 1917, was only 217,272 officers and men all branches included and in March just before the declaration of war it had fallen to 194,165 officers and men, decreasing thus by more than one-tenth in two months as a result mainly of the return of certain mobilized elements of the National Guard to civil life. But by December, 1917, it had risen to 1,538,203 officers and men. That is, in the nine months between March and December the size of the Army was multiplied about eight times.

The year was mainly a period of organization and training. In comparison with the size of the Army the amount of active service was slight and the casualties resulting directly from the war were few. Only one-twentieth of the deaths occurred in Europe and of this small fraction two-thirds were due to disease. The new men brought into the Army were young and had been recently subjected to medical examination and selection. These influences were favorable to a low sickness and death rate. But on the other hand, when large numbers, some of them carrying in their systems the seeds of disease, are taken out of their home life and crowded together in camps and cantonments with the rapidity and under the conditions which prevailed almost of necessity in the last part of 1917, it is hardly possible to prevent epidemics of contagious diseases or to keep the mortality from such diseases during the early months down to the level maintained either before or after the period of rapid expansion.

The health of the Army month by month in 1917 is measured in the following table by showing the death rate for each month of that year:

TABLE No. 7.—*Death rate in Army (officers and enlisted men, all stations* [1]*), by months.*

Month.	1915			1917		
	Mean strength.	Deaths by month of occurrence.	Annual death rate.	Mean strength.	Deaths by month of admission to sick report.	Annual death rate.
January	103,182	30	3.43	217,272	140	7.58
February	103,943	45	5.65	207,097	180	11.33
March	105,500	38	4.24	194,165	141	7.94
April	105,912	41	4.71	244,700	156	7.76
May	104,809	29	3.27	305,290	205	8.17
June	103,887	32	3.75	384,945	159	5.03
July	102,942	29	3.32	560,449	161	3.38
August	101,552	63	7.31	693,498	170	2.88
September	103,211	37	4.36	1,155,401	207	2.18
October	103,139	43	4.91	1,272,819	398	3.68
November	104,064	34	3.97	1,369,111	1,241	11.03
December	103,967	50	5.66	1,538,203	932	7.13
Not tabulated					[2] 69	
Mean	103,842	471	4.45	678,579	4,159	6.13

[1] Total Army, including American and native troops.

[2] Of these 60 were among cases admitted to sick report before 1917 and 9 were deaths among Porto Ricans or Philippine Scouts with date of admission unreported.

For purposes of comparison in default of similar figures for 1916 the corresponding figures for 1915 have been introduced. But the deaths on which these monthly rates for 1917 are based are those which

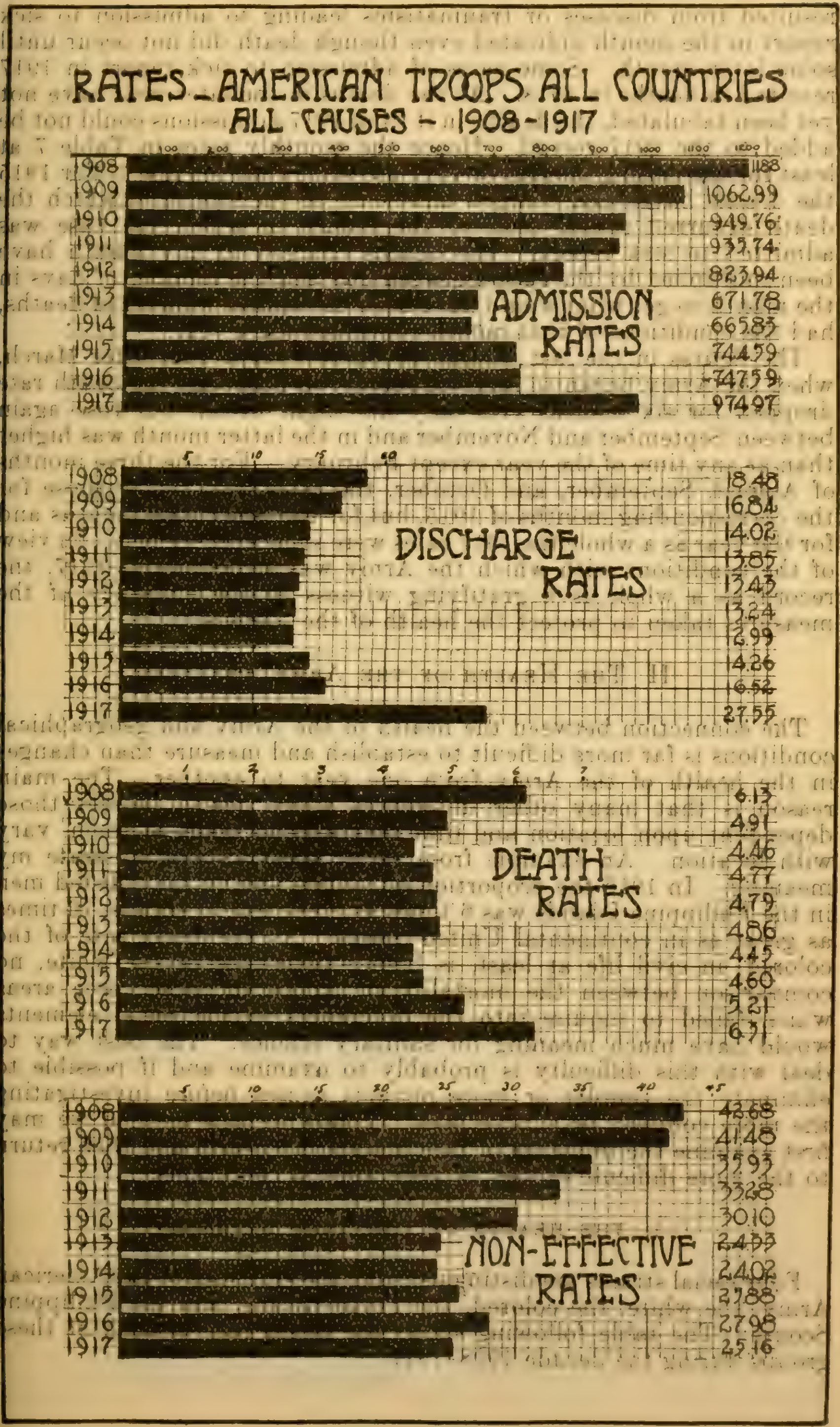
RATES – AMERICAN TROOPS ALL COUNTRIES
ALL CAUSES – 1908-1917
100
200
300
400
500
600
700
800
900
1000
1100
1200
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1188
1062.99
949.76
933.74
823.94
671.78
665.83
744.59
747.59
974.97
ADMISSION RATES
5
10
15
20
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
18.48
16.84
14.02
13.85
13.43
13.24
12.99
14.26
16.52
27.55
DISCHARGE RATES
1
2
3
4
5
6
7
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
6.13
4.91
4.46
4.77
4.79
4.86
4.45
4.60
5.21
6.71
DEATH RATES
5
10
15
20
25
30
35
40
45
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
42.68
41.48
37.93
33.28
30.10
24.33
24.02
27.88
27.98
25.16
NON-EFFECTIVE RATES

CHART No. 3.

resulted from diseases or traumatisms leading to admission to sick report in the month indicated even though death did not occur until some later month. Some cases of admission to sick report in 1917 resulted in deaths in 1918. As the deaths in the later year have not yet been tabulated, the deaths in it from 1917 admissions could not be added to the 1917 record. Hence the monthly rates in Table 7 at least for the closing months of 1917 are somewhat too low. For 1915 the deaths have been charged uniformly to the month in which the death occurred rather than to the month in which the case was admitted to sick report. The deaths charged to any month have been multiplied by the ratio between 365 and the number of days in the month to get what would have been the annual number of deaths, had the conditions of that month continued for a year.

The figures in the last column of Table 7 show that after March, when the Army began to increase rapidly in numbers, the death rate dropped for six months with only one slight break, but rose again between September and November and in the latter month was higher than at any time of the year except February. For the three months of August, September, and October, the rates were below those for the corresponding months of 1915, but for the other nine months and for the year as a whole the 1917 rates were somewhat higher. In view of the conditions with which the Army was struggling in 1917, the record as a whole is a gratifying witness to the efficiency of the measures taken to protect the health of the soldiers.

II. The Health of the Army Analyzed.

The connection between the health of the Army and geographical conditions is far more difficult to establish and measure than changes in the health of the Army from one year to another. The main reason is that many other differences affect health besides those dependent upon location and that they also, or many of them, vary with location. An example from racial statistics will illustrate my meaning. In 1916 the proportion of colored among the enlisted men in the Philippine Islands was 6 times as great and in Hawaii 16 times as great as in continental United States. As the death rate of the colored, in civil life at least, is higher than that of the white, no comparison between the mortality of troops in these three areas which failed to inquire into the differences in the racial elements would have much meaning for sanitary science. The best way to deal with this difficulty is probably to examine and if possible to eliminate the simpler or more obvious causes before investigating the more complex or elusive ones. Following this method we may first examine the influence of race upon army health and then return to the more difficult subject of geographical conditions.

1. THE HEALTH OF THE ARMY BY RACE.

Four racial strains are distinguished in the statistics of the American Army, the white, the colored, the Porto Ricans, and the Philippine Scouts. The table following shows the death rate of each of these groups during the decade 1908–1917.

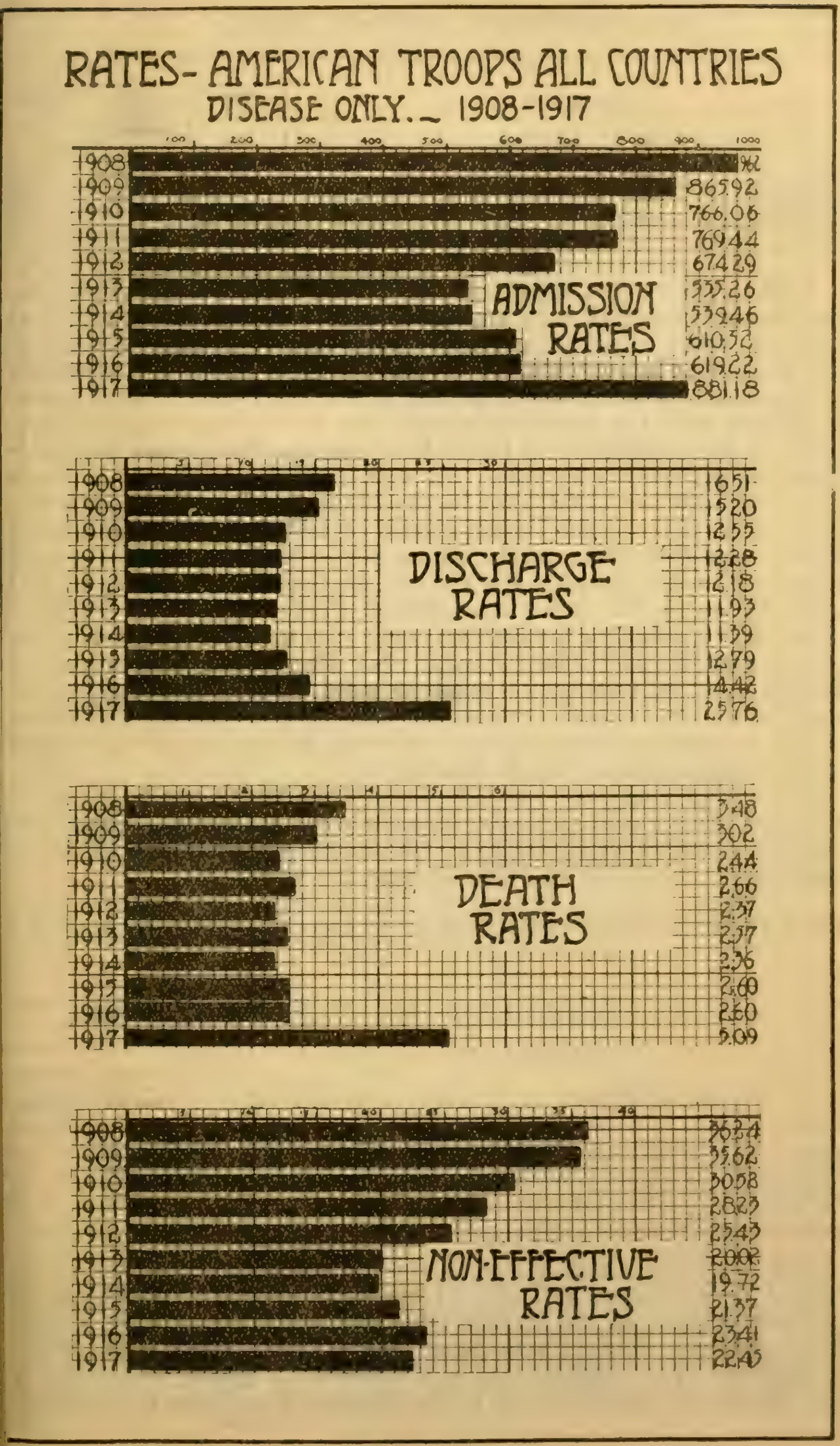
RATES- AMERICAN TROOPS ALL COUNTRIES
DISEASE ONLY.— 1908-1917
100
200
300
400
500
600
700
800
900
1000
ADMISSION RATES
1908 961
1909 865.92
1910 766.06
1911 769.44
1912 674.29
1913 535.26
1914 539.46
1915 610.52
1916 619.22
1917 881.18
5
10
15
20
25
30
DISCHARGE RATES
1908 6.51
1909 5.20
1910 2.55
1911 2.28
1912 2.18
1913 1.93
1914 1.39
1915 2.79
1916 4.42
1917 25.76
1
2
3
4
5
6
DEATH RATES
1908 3.48
1909 3.02
1910 2.44
1911 2.66
1912 2.37
1913 2.57
1914 2.36
1915 2.60
1916 2.60
1917 5.09
5
10
15
20
25
30
35
40
NON-EFFECTIVE RATES
1908 36.24
1909 35.62
1910 30.58
1911 28.23
1912 25.43
1913 20.02
1914 19.72
1915 21.37
1916 23.41
1917 22.45

CHART NO. 4.

TABLE No. 8.—*Death rate per 1,000 mean strength in United States Army (enlisted men), classified by race, for the decade, 1908–1917.*

Racial group.	Mean strength.	Average number of deaths annually.	Death rate.
White	130,660	711	5.44
Colored	5,577	50	9.02
Porto Ricans	770	3.4	4.42
Philippine Scouts	5,293	26	4.89

Table 8 shows that the death rate among colored enlisted men for the decade exceeded that among whites by about two-thirds, but that the death rate among Porto Ricans and Philippine Scouts was less than that among whites. What we know about the mortality of whites and colored in the population of the United States agrees in general with the preceding results, but it is certain that the mortality of the population of Porto Rico and the Philippines is greater than that of American whites. In 1915–1916 the death rate in Porto Rico was 22.0 per 1,000, that in the Philippine Islands in 1916 was 25.3, while that of the United States registration area was not far from 14 and that of the whole United States probably did not greatly exceed the same figure. We are put on inquiry, therefore, to find some reason for the lower mortality of Porto Ricans and Filipinos in the Army although the civilian death rate in those islands is much higher than in the United States. For Porto Rico the number of deaths, only 34, may be too small to yield a significant rate but for the Philippines no such explanation can apply. Are the Philippine Scouts subject to a more rigorous selection before admission or more readily discharged in case of disability?

The question deserves further examination which can be given by applying other health tests to these four racial groups. First, how do they compare in the ratio of admissions to sick report to mean strength? The following table answers the question.

TABLE No. 9.—*Admissions to sick report in United States Army (enlisted men), classified by race, for the decade, 1908–1917.*

Racial group.	Mean strength.	Admissions to sick report.	
		Average annual number.	Annual rate per 1,000.
White	130,660	118,378	904
Colored	5,577	5,299	949
Porto Ricans	770	742	967
Philippine Scouts	5,293	3,845	727

The figures in Table 9 strengthen the conjecture that the death rate of Porto Ricans in Table 8 rests on so narrow a basis as to be untrustworthy. In the present table sickness is shown to be a little more common among Porto Rican troops than among either white or colored. The sickness rate of the colored is greater than that of the whites but the difference in the amount of sickness is much less han the difference in the death rate of the two races. With reference o the Philippine Scouts the evidence supports that in Table 8 and ndicates that they are much freer from sickness than any one of he other three groups.

It is possible that the very low death rate and sickness rate of the ?hilippine Scouts are due to the fact that those whose health is im- paired either temporarily or permanently are discharged for dis- bility earlier and more regularly than soldiers, white or colored, inder similar conditions in the United States. To determine whether his is actually the case the following table has been prepared showing he rate of discharge of each of the four racial groups.

ABLE No. 10.—*Rate of discharge for permanent disability in United States Army (enlisted men), classified by race, for the decade 1908–1917.*

Racial group.	Mean strength.	Discharges for permanent disability.	
		Average annual number.	Annual rate.
Vhite	130,660	2,727	20.9
olored	5,577	118	21.2
orto Ricans	770	7	9.1
hilippine Scouts	5,293	47	8.9

The figures show that the rate at which both Porto Ricans and ?hilippine Scouts are discharged for permanent disability is less than ne-half as great as the rate at which whites and colored are dis- harged and thus give a negative answer to the hypothesis.

The Philippine Scouts, therefore, seem to have better health than merican troops, either white or colored. As the health of the popu- ation from which they are selected is certainly below that of Ameri- an whites and probably below that of American colored, we must uppose that these scouts are recruited by a more rigid and exacting elective process than that passed by American troops, either white r colored. Beyond this general conclusion the figures do not enable s to go.

2. THE HEALTH OF THE ARMY IN DIFFERENT PLACES.

A. UNITED STATES, HAWAII, AND THE PHILIPPINE ISLANDS.

Now that the racial statistics have been examined we are in a etter position to consider the effect of geographical location upon ealth. There are three main regions, the United States, Hawaii, nd the Philippines, in each of which soldiers belonging to the two nain American races, white and colored, have for years been sta- ioned in numbers large enough to furnish significant rates. The irst question to be raised, then, is this: What is the health of Ameri- an troops, either white or colored, in the United States, Hawaii, or he Philippines? Figures are available for each year since 1904. It s best to give the results for 1904–1916 together and those of 1917 eparately, because in the later year the abnormal conditions and he great size of the army would make an average including it far rom typical. For white troops the death rate, 1904–1916, was 5.08

in the United States, 3.03 in Hawaii, and 6.14 in the Philippines. For colored troops during the same period the death rate was 8.51 in the United States, 5.13 in Hawaii, and 7.56 in the Philippines. Seemingly for both races Hawaii is a more healthy location than the United States or the Philippines. The death rate of white soldiers is lower and of colored soldiers is higher in the United States than in the Philippines. In 1917 the death rate of white soldiers in the United States increased to 6.27 per 1,000 and of colored soldiers to 14.37 per 1,000, the unfavorable conditions of that year raising the white death rate about one-fourth and the colored death rate about two-thirds above its previous average. The changes in Hawaii were in the same direction and with a similar difference between the two races, but in the Philippine Islands the death rate of the soldiers of each race dropped off sharply. The figures then indicate that for each race Hawaii is a very healthy station and that while in all three regions the death rate of the colored soldiers is higher than that of the whites, in the United States it is higher by about two-thirds, and in the Philippine Islands by only one-fourth.

B. CONTINENTAL UNITED STATES.

The death rate has meaning only when it is based upon deaths enough to yield a significant average. The fact that in 1917 there were four States in which no death occurred in the Army, three in each of which there was only one death, and three in each of which there were only two, does not even suggest that these States or the soldiers stationed in them were remarkably healthy. The following table includes only those States in which at least 50 deaths occurred at Army posts in 1917. They are arranged in order of increasing death rate.

TABLE NO. 11.—*Death rate in Army (enlisted men), by location of command for States in each of which 50 or more deaths occurred, 1917.*

State.	Mean strength.	Deaths.	Death rate.	State.	Mean strength.	Deaths.	Death rate.
New York	52,942	108	2.04	Arizona	9,514	72	7.57
California	32,592	124	3.80	Georgia	39,653	317	7.99
Virginia	19,032	96	5.04	South Carolina	25,931	250	9.64
Kentucky	9,406	55	5.85	Missouri	5,003	52	10.39
Ohio	14,225	84	5.90	Kansas	15,836	235	14.84
New Mexico	13,902	93	6.69	Arkansas	10,763	211	19.59
Texas	89,861	641	7.13	Louisiana	5,829	132	22.65
Mississippi	9,522	67	7.04				

Table 11 does not clearly reveal any geographical grouping of the States with high or low Army death rates. It does show a large number of Southern States and only one-fifth of the northern on the list. But this may be due to the location of so large a number of camps in that part of the country. To determine whether the death rate of soldiers varied with the location of the camp the States have been combined into groups in the table following. In each group, it will be noticed, there were 50 deaths or more of soldiers and the rates, therefore are probably significant.

TABLE No. 12.—*Death rate in United States Army (enlisted men), by location of command for groups of States, 1917.*

Group.	Mean strength.	Deaths.	Death rate.	Per cent of rural population to total, 1910.
Southern North Atlantic (N. Y., N. J., Pa.)	85,985	166	1.93	29.0
New England (Me., N. H., Vt., Mass., R. I., Conn.)	27,949	57	2.04	16.7
Eastern North Central (Ohio, Ind., Ill., Mich., Wis.)	47,220	122	2.58	47.3
Pacific (Wash., Oreg., Cal.)	52,348	171	3.27	43.2
Northern South Atlantic (Del., Md., D. C., Va., W. Va.)	38,016	144	3.79	65.0
Eastern South Central (Ky., Tenn., Ala., Miss.)	38,795	154	3.97	81.3
Mountain (Mont., Wyo., Colo., N. Mex., Idaho)	22,467	128	5.70	64.6
Basin (Ariz., Utah, Nev.)	12,654	84	6.64	62.2
Southern South Atlantic (N. C., S. C., Ga., Fla.)	79,068	590	7.46	81.6
Western South Central (Ark., La., Okla., Tex.)	116,579	994	8.53	77.7
Western North Central (Minn., Iowa, Mo., N. Dak., S. Dak., Nebr., Kans.)	36,254	317	8.74	66.7
United States	557,335	2,927	5.2	53.7

The table shows that the lowest Army death rates were in States north of Mason and Dixon's Line and the Ohio River and east of the Mississippi and that the highest rates were in States between the Mississippi River and the Rocky Mountains. In determining this geographical grouping two causes may have been at work. First, as the last column of Table 12 indicates, States with a low soldier death rate are the States with a large proportion of urban population, and vice versa. Secondly, States with a low soldier death rate are the states with a well developed public-health service. These two influences are closely interdependent for the public-health work in general and especially in the United States has been more needed and is now better developed in urban or densely settled areas. But the way in which these two influences are supposed to work is quite different. If the density of population is the main cause the low death rate would result from the fact that among the new recruits from urban districts the proportion who have already been exposed to the germs of various contagious diseases and have thus gained an increased power of resistance would be much larger than the proportion among the new recruits from rural districts. On the other hand, if the development of public-health work is the main cause the low death rate would result from the fact that among the new recruits from such States the proportion having a knowledge of the elementary principles of hygiene and sanitation and able and willing to cooperate with and reenforce the efforts of the medical staff would be much greater. It seems likely that the two sorts of influences have cooperated in bringing about the striking result, but it is difficult to see how that theory can be brought to a test of the figures.

3. THE HEALTH OF THE ARMY CLASSIFIED BY AGE.

In the tabulations for the calendar year 1917 with which this report is mainly concerned, no classification of the troops by age has been attempted and none of significance could be made because we do not know the mean strength by age. But in the reports for each of the nine years, 1905–1913, the mean strength, the deaths, and the three classes of data about the sick were reported in age groups and the

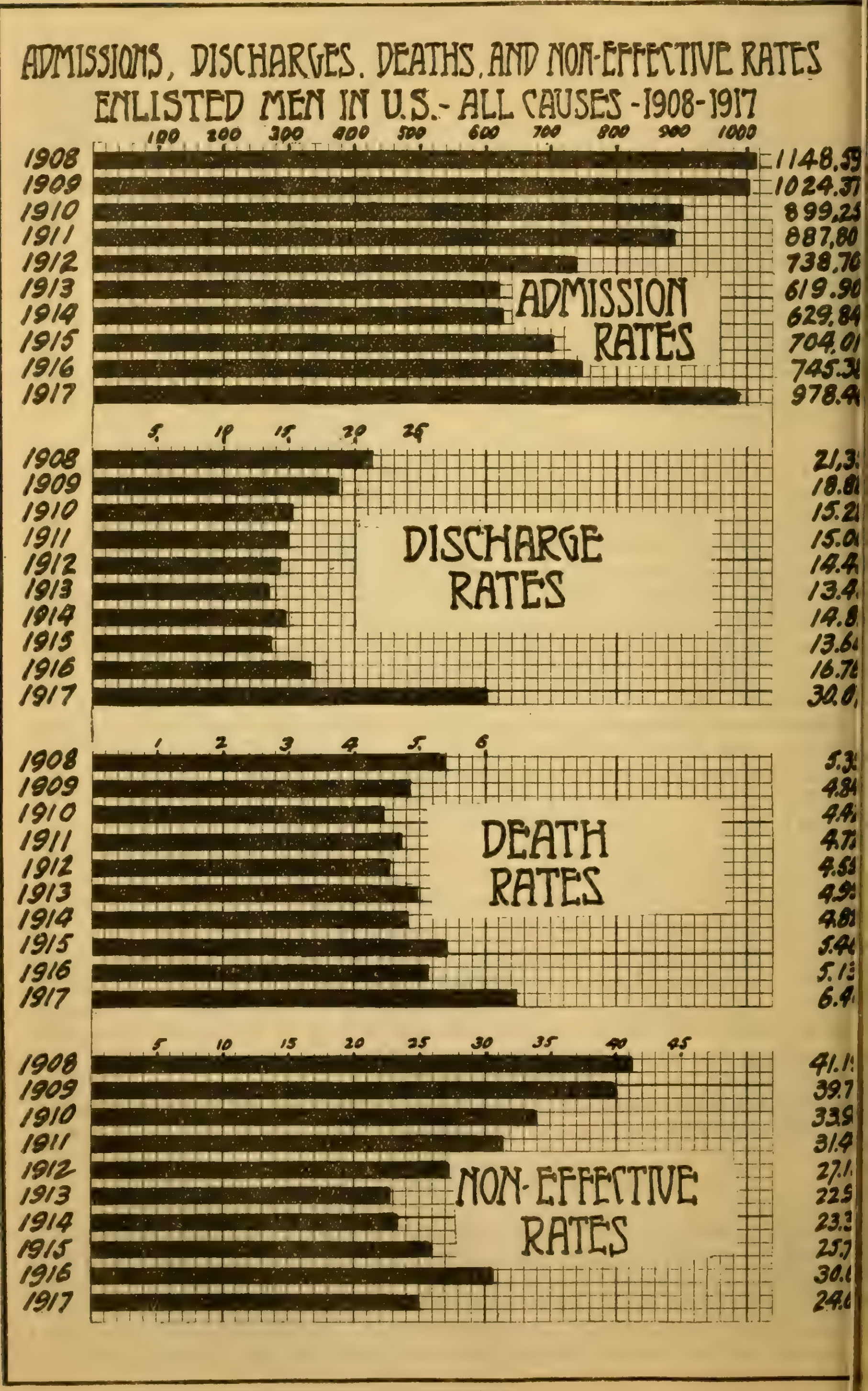
ADMISSIONS, DISCHARGES, DEATHS, AND NON-EFFECTIVE RATES
ENLISTED MEN IN U.S.- ALL CAUSES -1908-1917
100 200 300 400 500 600 700 800 900 1000
1908 1909 1910 1911 1912 1913 1914 1915 1916 1917
ADMISSION RATES
1148.59
1024.37
899.25
887.80
738.70
619.90
629.84
704.01
745.3
978.4
5 10 15 20 25
1908 1909 1910 1911 1912 1913 1914 1915 1916 1917
DISCHARGE RATES
21.3
18.8
15.2
15.0
14.4
13.4
14.8
13.6
16.7
30.0
1 2 3 4 5 6
1908 1909 1910 1911 1912 1913 1914 1915 1916 1917
DEATH RATES
5.3
4.8
4.4
4.7
4.5
4.9
4.8
5.4
5.1
6.4
5 10 15 20 25 30 35 40 45
1908 1909 1910 1911 1912 1913 1914 1915 1916 1917
NON-EFFECTIVE RATES
41.1
39.7
33.9
31.4
27.1
22.5
23.3
25.7
30.
24.

CHART No. 5

results invite examination. The material for any one of those years was not extensive enough to measure the influence of the age of the soldiers upon their health. For example, to the simple question: At what age are soldiers most healthy? the series of tables indicates the following answer: As measured by death rate, the healthiest age was, in one year, 15 to 19, in a second, 20 to 24, in a third, 30 to 34, in a fourth, 35 to 39, and in the five other years, 25 to 29; as measured by the proportion admitted to sick report, the healthiest age was, in four years, 40 to 44, and in five years, 45 to 49; as measured by the proportion discharged for permanent disability, the healthiest age was, in two years, 40 to 44, in two years, 50 and over, and in five years, 45 to 49; as measured by the proportion constantly noneffective, the healthiest age was, in two years, 45 to 49, and in six years, 35 to 39.[1] Clearly this answer does not go far toward settling the question to which it is addressed. That the healthiest age measured by any of these tests really changed thus from one year to another is most improbable. More light is thrown upon the inquiry when the returns of each of these nine years are combined into one table. The results are as follows:

TABLE No. 13.—*Health of United States Army (American troops), classified by age, 1905–1913.*

Age.	Mean strength.	Admissions to sick report.	Deaths.	Discharged for disability.	Constantly noneffective.
Under 20	1,552	2,068	5	47	74
20–24	19,938	21,310	49	481	763
25–29	13,947	10,145	31	255	411
30–34	6,704	3,833	19	113	168
35–39	3,299	1,709	14	45	78
40–44	1,671	824	12	19	39
45–49	873	432	8	8	20
50 and over	379	252	6	6	13

Ratio per 1,000 mean strength.

Age.	Admissions to sick report.	Deaths.	Discharged for disability.	Constantly noneffective.
Under 20	1,332	3.35	30.1	48
20–24	1,069	2.47	24.1	24
25–29	727	2.22	18.3	29
30–34	572	2.88	16.8	25
35–39	518	4.18	13.6	24
40–44	493	7.11	11.2	23
45–49	495	9.29	9.6	23
50 and over	665	16.12	16.4	34

Table 13 shows that admissions to sick report in hospital or quarters are most common among the very young soldiers and decrease steadily and rapidly up to the age 40 to 44 when they were not much more than one-third as common as among soldiers under 20 years of age. After that time of life they increased, but soldiers even at ages over 50 were admitted to sick report only half as often as their

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[1] For one of the nine years this form of the rate is lacking.

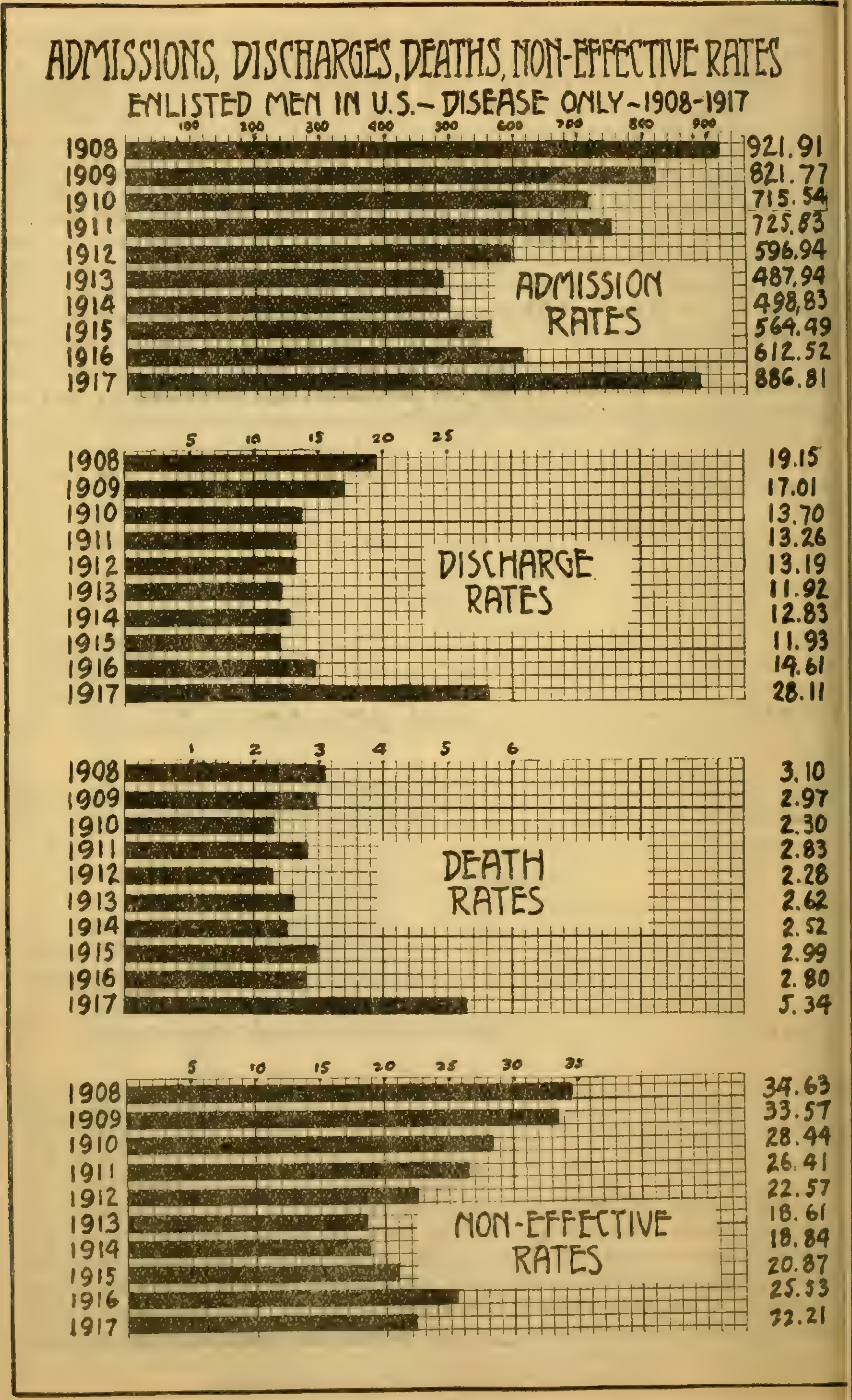
ADMISSIONS, DISCHARGES, DEATHS, NON-EFFECTIVE RATES
ENLISTED MEN IN U.S.–DISEASE ONLY–1908-1917
100
200
300
400
500
600
700
800
900
1908 921.91
1909 821.77
1910 715.54
1911 725.83
1912 596.94
1913 487.94
1914 498.83
1915 564.49
1916 612.52
1917 886.81
ADMISSION RATES
5
10
15
20
25
1908 19.15
1909 17.01
1910 13.70
1911 13.26
1912 13.19
1913 11.92
1914 12.83
1915 11.93
1916 14.61
1917 28.11
DISCHARGE RATES
1
2
3
4
5
6
1908 3.10
1909 2.97
1910 2.30
1911 2.83
1912 2.28
1913 2.62
1914 2.52
1915 2.99
1916 2.80
1917 5.34
DEATH RATES
5
10
15
20
25
30
35
1908 34.63
1909 33.57
1910 28.44
1911 26.41
1912 22.57
1913 18.61
1914 18.84
1915 20.87
1916 25.53
1917 22.21
NON-EFFECTIVE RATES

CHART No. 6.

youngest comrades. As this is contrary to the conditions in civil life, where sickness increases steadily with years, some explanation is needed. Perhaps men who for years have been under army discipline acquire ability to care for themselves, and habits diminishing their risk of sickness, which together more than neutralize the tendency to an increase of invalidity with age. This conjecture finds some support in the rate of the constantly noneffective. This is at a maximum among soldiers less than 20 years of age, and at ages between 20 and 50 is almost constant at one-half the proportion among the youngsters. Apparently the normal tendency to an increase of sickness in advancing years is about balanced by some other influence which may be the increasing ability and willingness of the older soldiers to avoid sickness. The proportion discharged for disability, likewise, is at the highest among boys under 20 years of age and very low at ages 45 to 49. The death rate is the only measure of health which reaches a minimum at 25 to 29, and thereafter goes up steadily.

4. THE HEALTH OF THE ARMY CLASSIFIED BY LENGTH OF SERVICE.

There is obviously a close connection between length of service and age. Because of that fact and with the material classified only by each of the two characteristics separately, and not by the two in combination, it is almost impossible to distinguish between the influence of one factor and that of the other. What is needed is a large body of material classified both by age and by length of service. This would enable us to measure, for example, how the health of soldiers 20 to 24 years of age varies with the length of their service, or how the health of soldiers who have been in the Army between five and six years varies with their age.

The material in hand, speaking for the nine years 1905–1913, has been combined into a table like that just given for age.

TABLE NO. 14.—*Health of United States Army (American troops), classified by length of service, 1905–1913.*

Length of service.	Mean strength.	Admissions to sick report.	Deaths.	Discharged for disability.	Constantly noneffective.
Less than 1 year	11,458	15,362	39	486	533
1 to 2 years	8,319	6,684	13	147	287
2 to 3 years	7,635	5,877	13	81	210
3 to 4 years	4,071	2,705	8	58	112
4 to 5 years	3,255	2,036	7	43	83
5 to 9 years	7,986	5,080	25	103	215
10 years and over	5,639	2,829	38	55	127

Ratios per 1,000 mean strength.

Length of service.	Admissions to sick report.	Deaths.	Discharged for disability.	Constantly noneffective.
Less than 1 year	1,341	3.4	42.4	46.7
1 to 2 years	803	1.6	17.7	33.4
2 to 3 years	770	1.7	10.6	27.0
3 to 4 years	664	2.0	14.3	27.7
4 to 5 years	626	2.2	13.2	25.3
5 to 9 years	636	3.1	12.9	26.9
10 years and over	502	6.7	9.8	22.0

The preceding table shows that admissions to sick report among soldiers in their first year of service are very much more common than among men who have become accustomed to Army life, indeed, more than twice as common as among men who have been in the Army three years or longer. As the differences revealed by this table are more marked than those appearing in the preceding we have good grounds for concluding that the high sickness rate of soldiers under 20 is due not to their youth in years, but to their being raw recruits. The death rate column tells much the same story, a high rate among the recruits not equaled till the group of veterans or those who have been in the Army at least 10 years is reached. All the columns of both tables emphasize the fact that the first year of service is a time of probation in its literal sense, and that of those joining the colors not a few fall by the wayside before the first year of service is over.

5. HEALTH OF THE ARMY CLASSIFIED AS OFFICERS AND MEN.

The death rate of officers is in some years below and in others above that of enlisted men. Thus in 1915 the death rate of officers was about one-fifth less than that of the men, but in 1916 it was about one-half more. To get the general or prevailing difference the figures for the period 1905–1916 have been combined. These show a death rate of 4.89 per 1,000 for the officers and 5.08 for the men. The death rate of the men exceeds that of the officers by about 6 per cent. This slight difference is probably the resultant of counteracting tendencies. Officers by their greater knowledge and income are better able to protect their own health. The proportion of colored among the officers is less than that among the men and, as we have seen, the death rate of the colored is higher than that of the white. But, on the other hand, officers on the average, no doubt, are considerably older than the men and would naturally show the higher death rate characteristic of their age. Influences of the former class evidently overbalance slightly those of the latter.

The change in 1917 affected the two classes in opposite ways, the death rate of the officers dropping to 3.40, or about three-fourths of the previous average, while the death rate of the enlisted men rose to 6.32, an increase of about one-fourth. Obviously the unfavorable health conditions in the year 1917 pressed heavily on the men but not on the officers.

III. THE CAUSES OF DEATH.

1. GENERAL.

This is at once the most important and the most difficult branch of the statistical work of the Surgeon General's Office. It is difficult mainly because of the uncertainty surrounding the cause of death. When a soldier dies immediately of a bullet wound or other casualty, it is easy to assign the cause of death. But when the wound leads to a long illness during which various complications arise and at last result in death, it is often difficult to assign the main cause. The same statement applies with greater force to a death from a complication of diseases. Indeed, under such circumstances the very phrase "cause of death" is objectionable because it involves the questionable or erroneous assumption that there is a cause of death, whereas in truth nearly every death from disease is the result of a large number of interacting influences, and the selection of the main or primary cause is often a matter of difficulty on which physicians differ widely and which can be decided, if at all, only by an autopsy. In this field, therefore, the proportion of erroneous returns is much wider than in any other with which we have to deal and often wide enough to make the interpretation doubtful. It is usually safe, however, to assume that the errors in the returns do not change their significance materially from one year to another. If so, changes from year to year in the reports are trustworthy indices to changes in the conditions even when the margin of error in the figures of any and every year is probably a wide one.

The number of causes of death from disease which have been used on death certificates, military or civilian, runs up into the thousands. Many of them are merely alternative names for the same morbid condition and others are cloaks, more or less transparent, for professional ignorance. Under these conditions statisticians in various fields have long concerned themselves with the construction of the best practicable nomenclature and classification of causes of death. The first International Statistical Congress ever held, that of Brussels in 1853, gave attention to the subject, and in its successors the reports of committees and the discussions upon them have helped to clarify the situation. More recently international conferences devoted exclusively to this topic have been held at Paris, and but for the war the third would have been held in Washington in 1919. These various efforts toward uniformity have led gradually to the displacement of the several classifications, national, departmental or other, by the international classification now used by the United States Army as well as by the Federal Bureau of the Census and American registration offices without exception.

In Army statistics the most fundamental classification of causes of death is into diseases or internal causes and traumatisms or external causes. Even here, however, the accepted classification does not seem in all respects lucid and reasonable. Why, for example, should poisoning by food be classified as a traumatism and poisoning by drink, i. e., alcohol, as a disease? Yet, in general, the classification rests on a valid distinction and leads to significant results, and this is, perhaps, all that can be expected. The following table shows the death rate from each of these two classes of causes for a series of years.

TABLE No. 15.—*Death rate of United States Army (American troops) from disease and from external causes, 1907–1917.*

Year.	Mean strength.	Deaths from—		Death rate from—	
		Disease.	External causes.	Disease.	External causes.
1907	54.949	189	130	3.44	2.37
1908	67.515	235	179	3.48	2.65
1909	75,399	228	142	3.02	1.88
1910	71,814	175	145	2.44	2.02
1911	73.023	194	154	2.66	2.11
1912	79.613	189	192	2.37	2.41
1913	81,697	210	187	2.57	2.29
1914	88.133	208	184	2.36	2.09
1915	94.729	246	190	2.60	2.01
1916	105.720	258	258	2.60	2.60
Total	792,592	2,132	1.761	2.69	2.22
1917	639,645	3,257	779	5.09	1.22

As would be expected in time of peace, the death rate from disease during the decade 1908–1916 was higher as a rule that the death rate from external causes, varying between 2.36 and 3.48 per 1,000. But in 1917 it went up to 5.09, higher by nearly one-half (46 per cent) than in 1908, the highest of the preceding 10. Meantime the death rate from external causes, which in the preceding 10 years had varied between 1.88 and 2.65 per 1,000, fell to 1.22, less than two-thirds of the lowest rate in the preceding decade. Thus the high rate in 1917 as the resultant of an extremely low rate for external causes more than outweighed by a high rate for disease. Many of these deaths from disease, no doubt, could have been prevented if the country and the department had been willing to purchase that advantage by delaying the calling and training of the soldiers until thoroughly satisfactory arrangements for clothing, housing, and caring for them had been matured. But such an advantage would have been dearly purchased if it had protracted the war or diminished the chance of a successful outcome.

2. THE MOST IMPORTANT CAUSES OF DEATH.

In order to indicate the distribution of the leading diseases in 1916 and 1917 a table has been prepared showing each disease which in either year caused at least 1 per cent of the deaths from disease. They have been arranged in the order of their deadliness.

TABLE NO. 16.—*Number and per cent of deaths from the main diseases United States Army*[1] *(enlisted men), 1916–1917.*

Diseases.	Deaths.		Diseases.	Deaths.	
	Number.	Per cent.		Number.	Per cent.
1916.			1917.		
Tuberculosis (all forms)	39	14.2	Measles	975	29.9
Pneumonia	29	10.6	Lobar pneumonia	798	24.5
Organic heart disease	18	6.6	Epidemic cerebrospinal meningitis	332	10.2
Cancer and other malignant tumors	16	5.8	Broncho-pneumonia	240	7.3
Appendicitis	16	5.8	Tuberculosis (all forms)	135	4.2
Syphilis	12	4.4	Appendicitis	80	2.5
Epidemic cerebrospinal meningitis	11	4.0	Scarlet fever	59	1.8
Bright's disease	11	4.0	Heart, other organic diseases of	39	1.2
Dysentery	10	3.7			
Purulent infection and septicemia	10	3.7			
Measles	9	3.3			
Broncho-pneumonia	8	2.9			
Acute nephritis	7	2.6			
Diseases of stomach (except cancer)	5	1.8			
Simple peritonitis	4	1.5			
Hernia	4	1.5			
Apoplexy (cerebral hemorrhage)	4	1.5			
Pulmonary congestion and pulmonary apoplexy	4	1.5			
Diseases of arteries	4	1.5			
Scarlet fever	3	1.1			
Diabetes	3	1.1			
Alcoholism	3	1.1			
Total	230	84.2	Total	2,658	81.6
All other causes	44	15.8	All other causes	599	18.4
All deaths from disease	274	100.0	All deaths from disease	3,257	100.0

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[1] Including American and native troops.

The table shows that the doubling of the death rate from disease in 1917 was attended by a great reduction in the number of causes to each of which a significant proportion was attributed. In 1916 there were 22 causes and in 1917 only 8, each of which produced at least 1 per cent of all the deaths of the year. Of the 8 leading causes of death in 1917 there are 5 of an epidemic character of which measles is the most important.

To interpret aright the large number of deaths in 1917 ascribed to measles, it is needful to understand how deaths due to a complication of causes are treated under the international usage to which reference has already been made.

The International Commission on the Classification of Causes of Death at its last meeting held in Paris in 1909 appointed a special committee to consider the proper treatment of joint causes of death and recommended that the existing practice be continued until the committee should report. That practice is expressed by the following rules:

1. If one of the two diseases is an immediate and frequent complication of the other, the death should be classified under the head of the primary disease.
2. If the preceding rule is not applicable, the following should be used: If one of the diseases is surely fatal and the other is of less gravity, the former should be selected as the cause of death.
3. If neither of the above rules is applicable, then the following: If one of the diseases is epidemic and the other is not, choose the epidemic disease.
4. If none of the three preceding rules is applicable, the following may be used: If one of the diseases is much more frequently fatal than the other, then it should be selected as the cause of death.
5. If none of the four preceding rules applies, then the following: If one of the diseases is of rapid development and the other is of slow development, the disease of rapid development should be taken.
6. If none of the above five rules applies, then the diagnosis should be selected that best characterizes the case.

C. MOBILIZATION OF THE ARMY.

The conditions presented by the Army for 1917 are so completely novel that the routine report of former years becomes quite inadequate for this. From a strength of 217,272 in January, 1917, the Army increased to 1,538,203 in December, 1917. This increase occurred, moreover, not uniformly, but, on the contrary, was largely confined to the last six months of the year, during five of which the monthly increments exceeded the size of the Regular Army in the preceding December (Chart 9). Indeed, in the single month of September the increment to the Army was about four times the strength of the Regular Army in December, 1916. The mobilization during September of 462,000 men and the preparations for that mobilization were a severe strain on all branches of the War Department, and it was well nigh inevitable that they should have affected unfavorably the record that the Medical Department made in the nine months following July 1, 1917.

The Army of January, 1917, included about 115,000 officers and men of the Regular Army who were continued from December, 1916. During the first six months the strength of the Regular Army rose to 245,000, indicating that there had been a net gain by enlistment of about 130,000 recruits, so that on June 30 about half of the Regular Army consisted of men who had recently left civil life. On June 30, 1917, there were also about 111,000 men and officers in the National Guard (A. G. Rept. 1917, p. 45). These, more or less commingled with the National Army, were located in southern camps. The names of these camps with maximum strength and months thereof are:

Camp.	Location.	Maximum strength, 1917.	Month.	States from which troops came.
Beauregard	Alexandria, La.		December	Arkansas, Louisiana, Mississippi.
Bowie	Fort Worth, Tex.	26,901	October	Oklahoma, Texas.
Cody	Deming, N. Mex.	29,945	December	Minnesota, Iowa, Nebraska, South Dakota, in part.
Doniphan	Fort Sill, Okla	27,862	October	Kansas, Missouri.
Greene	Charlotte, N. C.	39,054	November	Idaho,[1] Montana, North Dakota, Oregon, South Dakota, in part, Washington, Wyoming.
Hancock	Augusta, Ga	28,426	do	Pennsylvania.
Kearney	San Diego, Cal	24,132	do	Arizona, California, Colorado, New Mexico, Utah.
Logan	Houston, Tex	33,346	December	Illinois.
McArthur	Waco, Tex	27,294	October	Michigan, Wisconsin.
McClellan	Anniston, Ala.	35,016	September	Delaware, District of Columbia, in part, Maryland, New Jersey, Virginia, in part.
Sevier	Greenville, S. C	27,302	December	District of Columbia, in part; North Carolina, South Carolina, Tennessee.
Shelby	Hattiesburg, Miss			Indiana, West Virginia, Kentucky.
Sheridan	Montgomery, Ala		October	Ohio.
Wadsworth	Spartanburg, N.C.	31,007	November	New York.
Wheeler	Augusta, Ga	25,168	do	Alabama, Florida, Georgia, Virginia, in part.

[1] This camp was occupied by these troops for a part only of the last four months of the year.

The details of weekly changes in the strength of these camps are given in Charts 10–39.

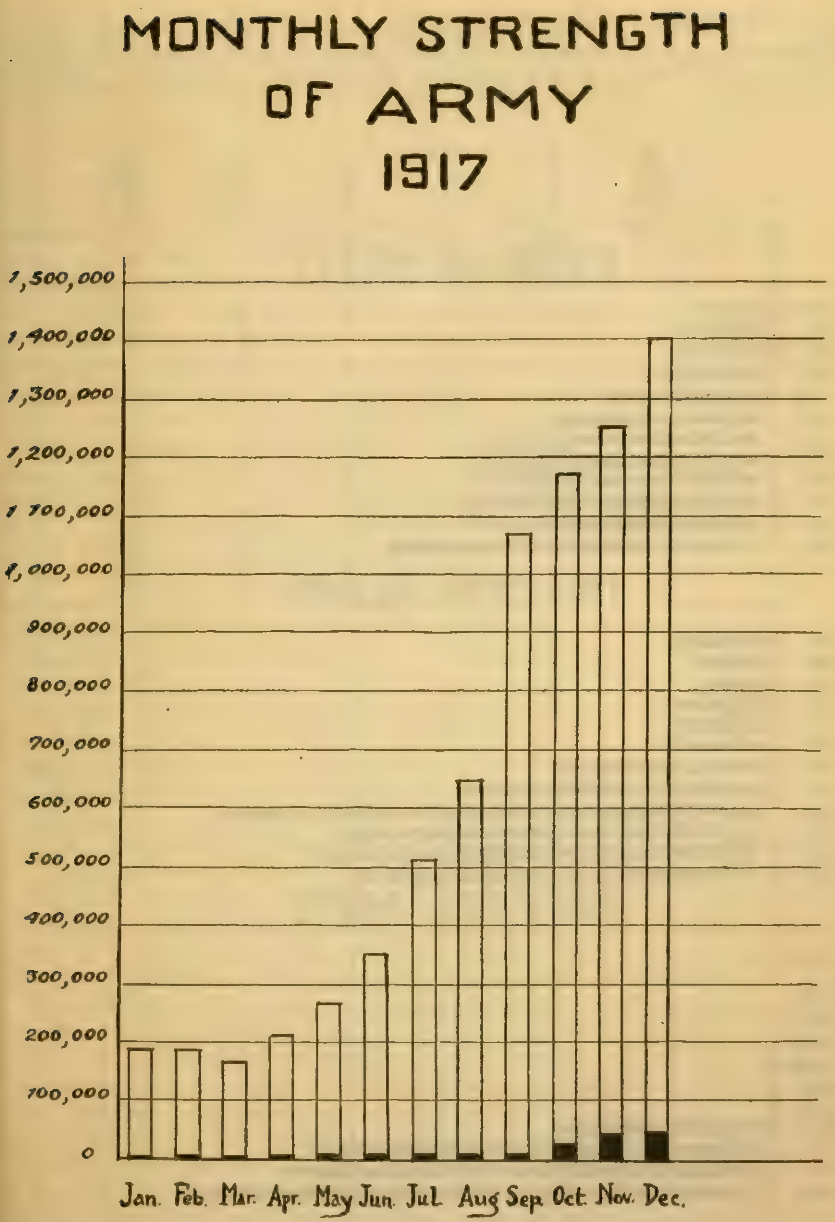
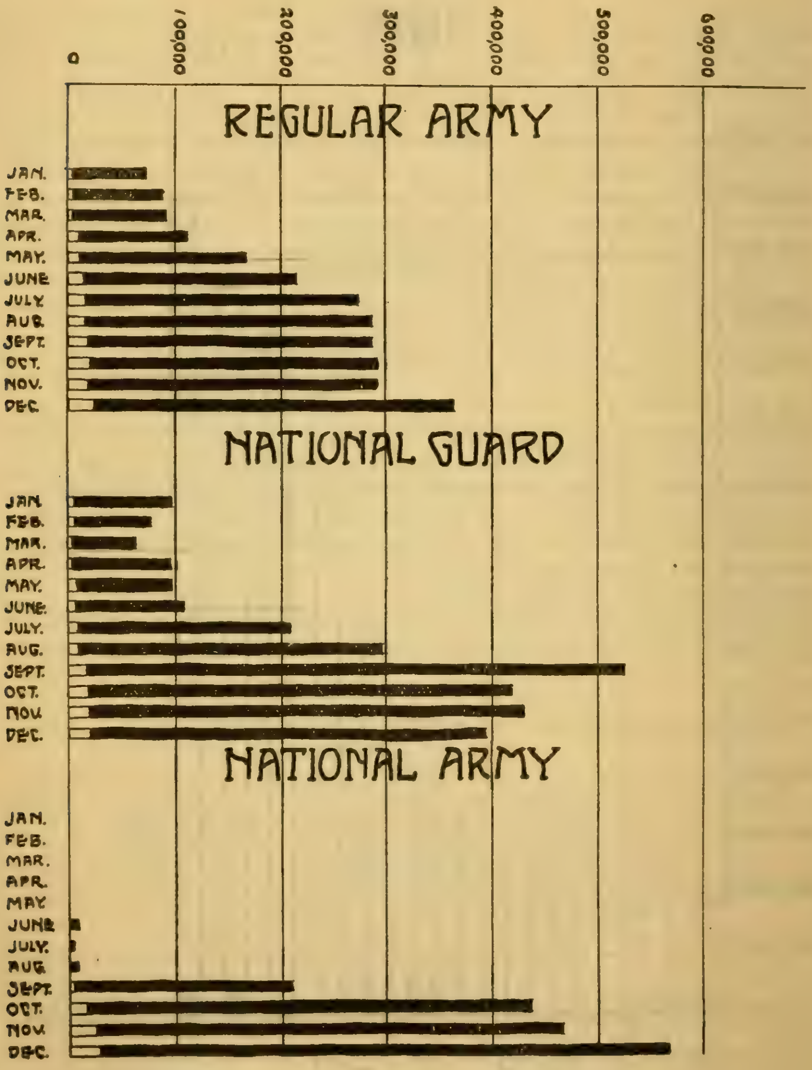


CHART NO. 7.

Enlisted men, American troops. The highest column gives the number of white troops, the black column of colored troops.

In September, 1917, the entrainment of the first call for the first draft was made. This comprised 5 per cent of the 687,000 men of the first draft, or about 34,000 white men. The second call was for about 275,000 white men. The third call was for about 126,800 men. Of these about 9,300 men were colored, sent to Camps Pike, Gordon, and Jackson. The fourth call of October 13, comprised about 47,000 men, of whom 29,000 were colored. Subsequent calls in November and December yielded about 36,000 additional men. The details of these distributions to the various camps are given in Charts 10–25.



STRENGTH BY MONTHS.

CHART No. 8.

I. THE PHYSICAL EXAMINATIONS AT LOCAL AND MEDICAL ADVISORY BOARDS.

The physical examination at local draft boards lay entirely under the jurisdiction of the Provost Marshal General who has already published an account of its method and results. (Rept. P. M. G.

to the Sec. of War, 1918.) But since the Medical Department of the Army had to deal with those who were accepted by the local and medical advisory boards as physically fit, it is desirable here to consider the Provost Marshal General's conclusions:

First, it appeared that of 2,510,706 examined physically by the local boards 29.1 per cent were rejected as physically unfit and 70.8 per cent were accepted as fit. In general, States between the Mississippi River and the Sierra Nevada Mountains had a low rate of rejections, 14 to 26 per cent (except Nevada, which had 30 per cent). The States of the Northeast had relatively high rates of rejection varying from 47 per cent for Pennsylvania to 30 per cent for New York. The high rejection may be due to careful selection and high ideals on the part of the examiners; in part it may be due to a physical inferiority of the men examined. The Provost Marshal General remarks (p. 46), "doubtless the local boards varied extremely in the strictness of their examinations."

The machinery of selecting the first contingent of the National Army was assembled with swiftness. The selective service act was passed on May 18, and "Regulations governing physical examinations," were issued July 2 (Form No. 11, P. M. G. O.). Beginning about July 20, local boards made examinations under these regulations. The regulations were brief (about four pages) and were replaced in August by "Instructions for the Physical Examination of Drafted Men at National Army Cantonments," issued by the Surgeon General and on December 15, by "Selective Service Regulations," including "Directions for physical examination," about seven pages in extent. Under the system which prevailed during the greater part of the time of selecting the National Army, covered by this report, "there was no appeal from local board ruling on physical qualification." The later regulations provided for sending doubtful cases to a medical advisory board. The accepted men were ordered to entrain on certain days to go to the prescribed camps. On each train they were accompanied by one of their number in charge of the party. Arriving at camp the physical examination took place, usually the next day, sometimes on the same day, sometimes after several days' delay. The physical examination took place in some available building, usually in a barrack or infirmary.

The problem of examining physically from 1,000 to 3,000 men in one day was a novel one and was met in various ways at different camps by the division surgeon. He usually appointed a chief medical examiner under whose direction stations were provided for the different examiners and barriers were created and orderlies posted to secure the regular movement of the recruits.

Different types of physical examination were developed at different camps. In one type there were routine examiners for the main examination line and for doubtful cases a board of specialists in another part of the building. In another type the specialists were stationed alongside of the routine examiners and observed doubtful cases there.

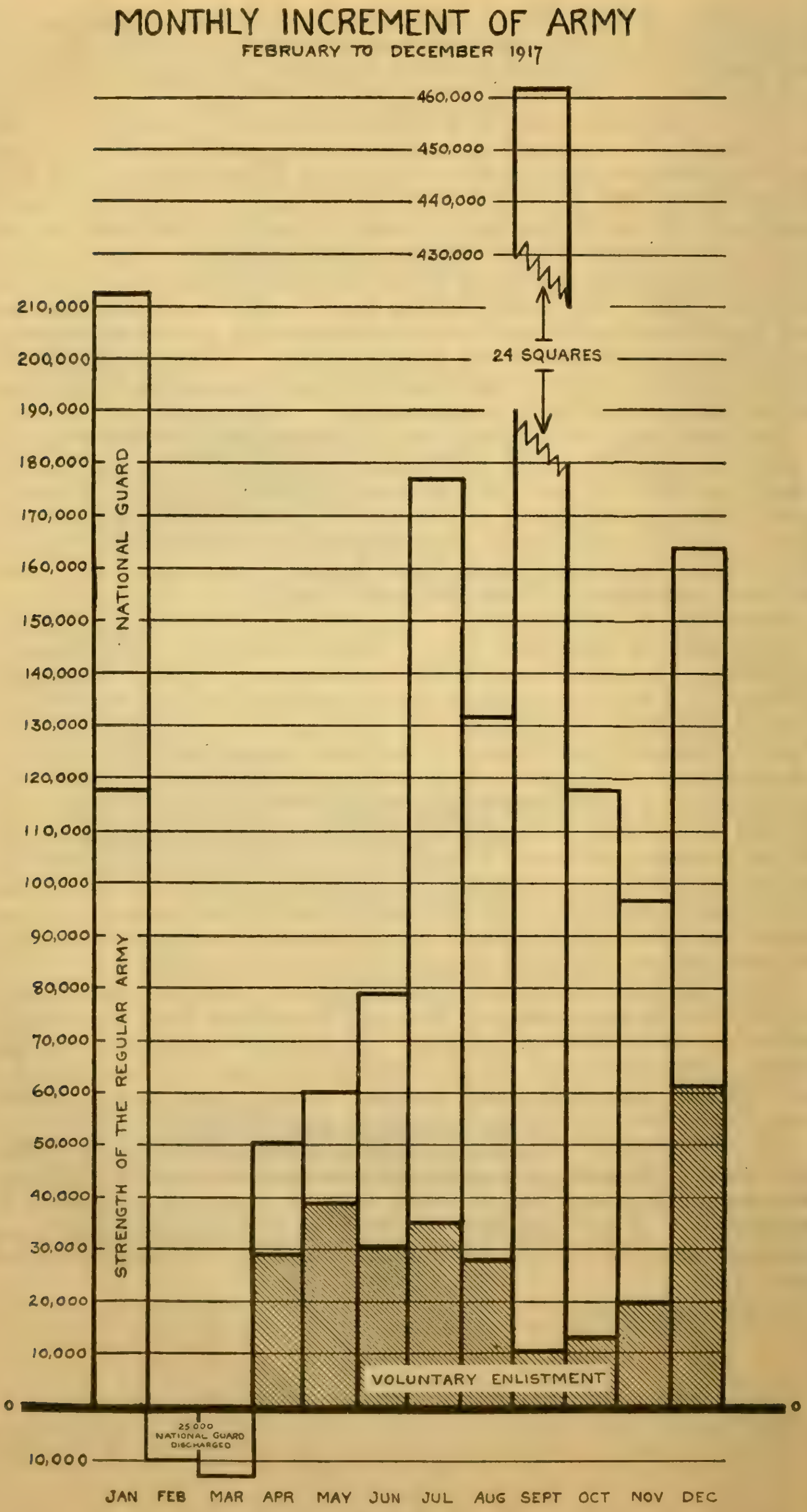

MONTHLY INCREMENT OF ARMY
FEBRUARY TO DECEMBER 1917
460,000
450,000
440,000
430,000
24 SQUARES
210,000
200,000
190,000
180,000
170,000
160,000
150,000
140,000
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
0
10,000
NATIONAL GUARD
STRENGTH OF THE REGULAR ARMY
VOLUNTARY ENLISTMENT
25 000 NATIONAL GUARD DISCHARGED
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEPT
OCT
NOV
DEC

CHART No. 9.

On a different basis the examinations may again be classified into two types. In some camps there is only a single team of examiners who are all engaged in examining the one line. This type is characterized by great thoroughness and speed in completing the survey of the individual man. In another type there are two, three, or even six teams, each team consisting naturally of fewer officers than in the first type since the number of medical officers available for the work is about the same in different camps. A careful comparison of the two methods shows that the number of recruits examined per examination officer is approximately the same. In any case, the examination at the mobilization camp is in general a more thorough one than that received from the local board.

The results of the physical examination at the mobilization camp are recorded on Form 1010 P. M. G. O., and in most camps also in greater detail in the Special Medical Form No. 88. The latter form, being on a 5 by 8 card, is filed and retained as a permanent record at most of the camps.

The proportion of rejections at each of the National Army camps is shown in the following table, taken from the report of the Provost Marshal General to the Secretary of War on the first draft under the Selective Service Act of 1917 (p. 46).

TABLE NO. 17.—*Rejections, physical examinations at camps.*

Specific camp showings for physical rejections.	States contributing to camp.	Number arrived.	Number rejected.	Per cent of arrived.
Camp Custer	Michigan and Wisconsin	17,487	1,660	9.49
Camp Devens	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.	36,082	4,281	11.87
Camp Dix	Delaware, New Jersey, and New York	19,804	1,573	7.94
Camp Dodge	Illinois, Iowa, Minnesota, and North Dakota	20,505	690	3.36
Camp Gordon	Alabama, Georgia, and Tennessee	19,935	1,556	7.80
Camp Grant	Illinois and Wisconsin	26,658	1,148	4.30
Camp Jackson	Florida, North Carolina, and South Carolina	17,754	1,975	11.12
Camp Lee	Pennsylvania, Virginia, and West Virginia	36,938	920	2.49
Camp Lewis	California, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.	46,313	5,095	11.00
Camp Meade	District of Columbia, Maryland, Pennsylvania, and Tennessee.	35,971	2,245	6.24
Camp Pike	Alabama, Arkansas, Louisiana, and Mississippi	24,389	1,819	7.46
Camp Riley	Arizona, Colorado, Kansas, Missouri, Nebraska, New Mexico, and South Dakota.	38,975	281	.72
Camp Sherman	Ohio and Pennsylvania	9,850	1,012	10.27
Camp Taylor	Illinois, Indiana, and Kentucky	27,903	2,143	7.68
Camp Travis	Oklahoma and Texas	32,746	993	3.03
Camp Upton	New York	31,423	2,318	7.38
Total		442,733	29,709	

II. MOBILIZATION CAMPS.

The General Staff of the Army early decided upon 16 cantonments for the new National Army in addition to the camps for the National Guard. The building of these National Army camps was begun in June and by September all were ready for troops. As an understanding of the history of disease in the Army during 1917 requires a knowledge of the location and conditions about these camps and cantonments and the source of their troops, leading facts about them are given herewith. For convenience all of the camps situated north of the latitude of the southern boundary of the State of Virginia, are described first, followed by a description of the camps in the Southern States.

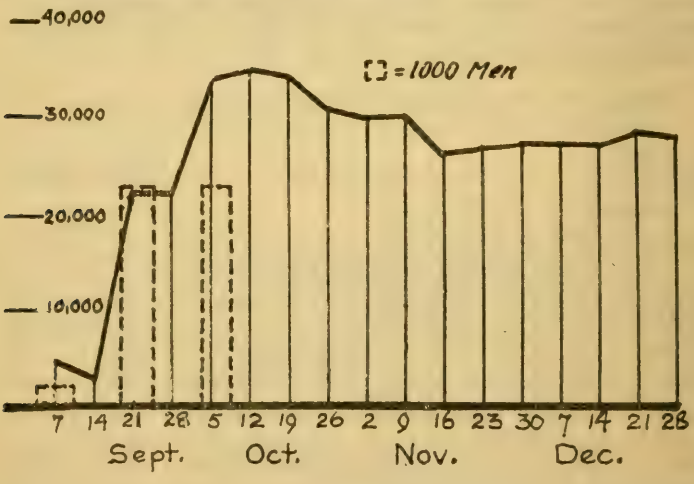
1. CAMP DEVENS, MASS.

Camp Devens is located on an irregular and wooded plateau about 300 feet above sea level just outside of the limits of the village of Ayer (of about 3,000 inhabitants) and approximately 30 miles from the city of Boston. There were natural ponds within the limits of the camp which have been effectively drained. The water supply for the camp is obtained from the Nashua River by a filter basin and the water is chlorinated.

The weather for October, 1917, at Camp Devens was cool, the temperature falling to freezing on the 20th of the month. There was also an excessive rainfall. November was unusually cold and dry. December was the coolest on record, the temperature of the camp falling to about 20° below zero. There was an exceptionally heavy rainfall during the month.

Polygon of weekly strength of Camp Devens, measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP DEVENS

CHART No. 10.

To Camp Devens were called in 1917 from civil life the followin contingents:

	Men.
Sept. 5–10	2, 18
Sept. 19–24	17, 47
Oct. 3–8	17, 47
Total	37, 14

The men came from New England and also from the northeas quarter of New York State. The net quota from Maine was 1,821 New Hampshire, 1,204; Vermont, 1,049; Massachusetts, 20,586 Rhode Island, 2,211; Connecticut, 10,977; New York (part), 5,434 This territory included the large cities of Boston, 750,000 inhabitant of whom about 18,000 are colored; Worcester, 165,000; Fall Rive

130,000; New Bedford, 115,000; Lowell, 114,000; Cambridge, 112,000; Springfield, 105,000; New Haven, 150,000; Bridgeport, 120,000; Hartford, 110,000; Providence, 250,000; and Albany, 105,000. Also numerous cities between 25,000 and 100,000 inhabitants. Of the population of Maine, 51.4 per cent is urban; of New Hampshire, 59.2 per cent; of Vermont, 47.5 per cent; of Massachusetts, 92.8 per cent; of Rhode Island, 96.7 per cent; of Connecticut, 89.7 per cent; of northeastern New York, 52.8 per cent. For the whole territory the percentage of urbanity is 63.7.

The strength of the camp at different dates is shown in Chart 10. As the curve shows, the camp was quickly raised to its full strength of 35,000 men by October 12, and therefore, apparently, few additions by transfer or otherwise were made, so that the strength gradually declined, due chiefly to discharges for disability.

The average monthly strength, all white, is as follows:

	White.
September	20,120
October	26,756
November	26,848
December	26,832

The frequency of the leading infectious diseases at Camp Devens and number of deaths is given by months, as follows:

TABLE NO. 18.—*Admissions and deaths, infectious diseases, Camp Devens, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia		8	7	9	2	1	1	4
Broncho-pneumonia		1	8	7		1		1
Measles (uncomplicated)	1	2	33	165				
Measles and lobar pneumonia				1				
Measles and broncho-pneumonia								
Measles and other complications								
German measles		1	8	62				
Mumps		1	6	12				
Scarlet fever				2				
Typhoid fever		1						
Tuberculosis	2	24	28	70				
Cerebrospinal meningitis				3			1	1
Chancroid		3	[illegible]	2				
Syphilis	10	18	24	35				
Gonorrhea	41	45	87	96(1)				
Total	54	104	204	465	2	2	2	[illegible]

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The morbidity rates for December from these diseases, i. e.,

$$\frac{\text{number admissions for selected diseases}}{\text{mean strength}} \text{ is } \frac{465}{26{,}832} = 17.4 \text{ per thousand.}$$

The rate is chiefly due, as we see, to measles and gonorrhea. The camp thus stands in its relation to other states in morbidity in about the same position as in respect to urbanity. During the remainder of the winter the morbidity rate ran about the same as in December and there was no marked epidemic of measles, pneumonia, or meningitis.

The division surgeon reports that the measles was of a very mild type and, as a rule, without complications. Approximately 10 per cent was of the German variety. Overcrowded barracks were a prominent factor in the spread of this disease. As men were transferred away from the division and the strength of organization was reduced to approximately 150 men, the number of cases developing daily showed a perceptible decline, while those organizations that maintained full strength continued to develop new cases. The Twenty-fifth Engineers, whose barracks were greatly overcrowded, were quarantined continuously. In the latter organization three cases of scarlet fever occurred out of a total of nine in the division. One case of typhoid fever, found in a drafted man five days after his arrival at this camp, occurred.

2. CAMP UPTON, N. Y.

Camp Upton occupies about 15 square miles of territory on Long Island between the Atlantic Ocean (5 miles to the south) and Long Island Sound (5 miles to the north). It is about 65 miles from New York City and 5 miles from the rural village of Yaphank. The site was a sandy, slightly rolling country covered with scrub pine. A tributary of the Peconic River, dry except after a rain, traverses the northern part of the reservation; a larger tributary rises in the eastern side. Carmans River runs in a broad shallow valley along the western border. Just south of the reservation are extensive salt marshes, which in August produced swarms of salt-marsh mosquitoes (*Culex sollicitans*) which discouraged workmen and delayed the opening of the camp. The elevation of the camp is about 100 feet above sea level. At a central point a ridge rises about 50 feet above the general level; on this the camp headquarters are placed.

Water is derived from deep-driven wells which tap the remarkable underground water strata of Long Island. Sewage was disposed of by a plant which filtered into the Peconic drainage basin.

The climate is nearly maritime. The mean annual temperature is about 50° F., and the monthly range is from about 74° in July to 30° in January and February. The maximum temperature rarely reaches 95°, the minimum, 0°. The mean annual precipitation is about 45 inches. The weather in the autumn of 1917 was severe. In September the temperature was about 5° below normal; in October, 7° below (mean, 48°); in November, 6° below normal (mean, 37°); in December, 8° below normal (mean, 25° F.), being the coldest December on record. A heavy snowstorm occurred in the middle of the month and on the 30th the temperature touched 7° F. below zero.

On account of the necessity of clearing so much ground and on account of labor trouble (aggravated by the above-mentioned mosquitoes), mobilization at Camp Upton was delayed five days. The successive increments (as called by the Provost Marshal General) were as follows:

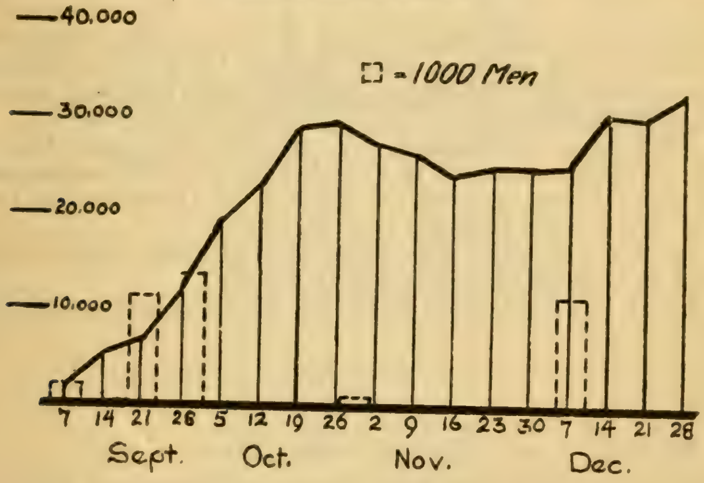
Sept. 10–15	2,112
Sept. 19–24	8,446
Sept. 28–Oct. 2	8,446
Oct. 27–Nov. 1	760
Dec. 5–10	8,446

Thus a total of 28,210 men was ordered to this camp during 1917.

These drafted men came, for the most part, from New York City (including Brooklyn, Queens, and Richmond Boroughs), Long Island and Westchester, Putnam, and Dutchess Counties. Greater New York dominated in this camp, which indeed drew from the most restricted area of any of the military camps. In 1915 Greater New York had a population estimated at 5,468,190, or 16,387 inhabitants per square mile; and Manhattan Borough alone a population of 122,832 per square mile. The population of Greater New York is racially exceedingly mixed. About 24 per 1,000 of the 1,082,000 males, 20 to 44 years of age, were negroes; and 556 per 1,000 were foreign-born whites. Of the total population, 800 per 1,000 are of foreign white stock; about 208 per 1,000 of English or Celtic origin; 185 Yiddish or Hebrew; 183 Germanic; 118 Italian; 47 Slavic and Lettic; 24 Scandinavian; and 14 Magyar. This racial complexity of the population had its influence in the causes of rejection at the cantonment.

Polygon of weekly strength of Camp Upton measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP UPTON

CHART NO. 11.

The leading diseases at Camp Upton had the following frequencies:

TABLE NO. 19.—*Admissions and deaths, infectious diseases, Camp Upton, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	1	6	8	29	1	....	2	3
Broncho-pneumonia	....	1	1	4	....	....	....	....
Measles (uncomplicated)	1	1	6	37	....	....	....	....
Measles and lobar pneumonia	....	....	....	3	....	....	....	....
Measles and broncho-pneumonia	....	....	1	3	....	....	....	....
Measles and other complications	....	....	....	....	....	....	....	....
German measles	....	....	1	....	....	....	....	....
Mumps	1	1	4	55	....	....	....	....
Scarlet fever	....	....	....	2	....	....	....	....
Typhoid fever	....	....	....	....	....	....	....	....
Tuberculosis	5	22	24	32	....	....	....	....
Cerebrospinal meningitis	....	....	1	....	....	1	....	1
Chancroid	1	....	4(9)	8(9)	....	....	....	....
Syphilis	1	16	18(9)	29(28)	....	....	....	....
Gonorrhea	....	41	50(9)	103(18)	....	....	....	....
Total	10	88	145	360	1	1	2	4

[1] Figures in parentheses are used for colored troops in venereal diseases only.

The strength of the camp at different dates is shown in Chart 11. The first 5 per cent of the drafted men were called September 10, and by October 19 the strength had risen (in part by transfers) to 30,000 men. After the December increment the number rose to about 33,000.

On December 28 the noneffective rate at Camp Upton was the lowest of the National Army camps. This is correlated with the fact that the area from which Camp Upton drew is the most densely populated of any in the United States. In one respect the figures for Camp Upton seem high, i. e., in admissions to sick report of gonorrhea. However, in this respect Camp Upton ranks in the middle of the list of all the camps.

3. CAMP DIX, N. J.

This camp lies near Wrightstown, N. J., about 20 miles southeast of Trenton. The site is a sandy plateau 150 feet above sea level, and is well drained. There are, however, large cranberry swamps to the east and south.

The months of mobilization were exceptionally cold. On December 30 the temperature fell to 7° F. below zero. November was dry; there was a heavy snowfall on the 10th of December, so that the ground was covered for some time thereafter.

Camp Dix is supplied with water from artesian wells, which have yielded an abundance of satisfactory quality.

To Camp Dix were called from civil life the following contingents:

	Men.
Sept. 5–10	2,151
Sept. 19–24	17,213
Nov. 24	6,454
Total	25,818

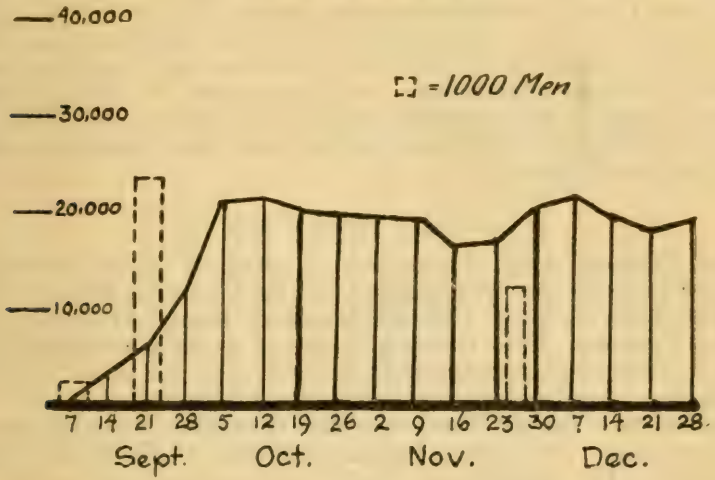
These men came from New Jersey, Delaware, and from all the western counties of New York State and the southern counties that lie west of the Hudson River. The largest cities of this area are Wilmington, population about 100,000; Newark, about 400,000; Jersey City, about 300,000; Paterson, about 140,000; Trenton, about 100,000; Camden, about 100,000; Buffalo, about 450,000; Rochester, about 250,000; Syracuse, about 150,000; Albany, about 100,000. The 26,000 called to Camp Dix came from a territory that is 71 per cent urban.

The strength of the camp at different dates is shown in Chart 12, from its first increment of 2,000 men to the end of the year. As compared with most other camps the total population remained relatively small, about 20,000. There were 671 colored troops at Camp Dix in September and October. These were then transferred away.

The leading diseases at Camp Dix by months are given in the following table. The striking fact is the large number of venereal diseases brought by the new troops. The 14 cases of typhoid fever in October were probably brought by the September increment. Measles were never very frequent—24 cases in December.

Polygon of weekly strength of Camp Dix measured by scale on the left.

Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP DIX

CHART No. 12.

TABLE No. 20.—*Admissions and deaths, infectious diseases, Camp Dix, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	4	4	4	15	....	....	3	3
Broncho-pneumonia	....	1	1	2	....	....	....	....
Measles (uncomplicated)	1	3	4	24	....	....	....	....
Measles and broncho-pneumonia	....	....	....	....	....	....	....	....
Measles and other complications	....	....	....	1	....	....	....	....
German measles	1	....	....	....	....	....	....	....
Mumps	....	....	6	9	....	....	....	....
Scarlet fever	....	2	1	5	....	....	....	....
Typhoid fever	....	14	5	1	1	1	....	2
Tuberculosis	1	23	11	21	....	....	....	....
Cerebrospinal meningitis	....	....	....	....	....	....	....	....
Chancroid	13(4)	23	14(1)	12(6)	....	....	....	....
Syphilis	19(1)	28	25(4)	23(8)	....	....	....	....
Gonorrhea	157(6)	301(3)	200(8)	145(41)	....	....	....	....
Total	207	402	284	313	1	1	3	5

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[1] Here as in other tables the numbers of white and colored patients are distinguished for the venereal disease only. The number of colored is given in parentheses.

The base hospital at Camp Dix was opened October 29, 1917. Up to December 31 there had been admitted 1,313 cases. The average number of days lost per patient, considering all patients, was 12.57. The average number of days lost per venereal patient was 10.5. The following infectious diseases were treated: malaria, 1; typhoid fever, 18; scarlet fever, 4; diphtheria, 2; tuberculosis, 28; tubercular meningitis, 1; chicken pox, 4; mumps, 7; pneumonia, 17; paratyphoid carrier, 1; measles, 18. The head of the hospital suggests: "The fact that the number of infectious diseases in this camp has been smaller than in the western and southern camps is probably largely because this division is comprised of men drawn from more thickly populated centers, where they have been exposed and become immune to many of the usual infectious diseases of camps. The number of cases of pneumonia has been very small, probably because there have been few cases of those infectious diseases which are frequently followed by pneumonia. The division has been well housed and clothed and the climatic conditions are exceptionally good."

4. CAMP MEADE, MD.

This National Army cantonment is situated nearly midway between Baltimore and Washington, on land lying between 100 and 200 feet above sea level. The soil is a sandy loam. It is well drained by the Patuxent River running along the western boundary of the camp. There was some springy ground near the river, and some Anopheles mosquitoes were found in the autumn.

The weather during November and December was exceptionally cold and dry. The lowest temperature was 2° F. on the 30th of December. The ground was pretty well covered with snow from the middle of December.

The water supply consists in part of three driven wells of excellent quality to which, as an auxiliary, is added water from Patuxent River, the latter more or less polluted. By alum precipitation and rapid sand filtration and chlorination this water was rendered usable. Sewage was disposed of by means of the usual septic tank.

To Camp Meade came in 1917 the following contingents:

	Men.
Sept. 19–24	17,882
Sept. 26–30	418
Oct. 3–8	2,035
Nov. 1	4,467
Nov. 2–7	12,108
Total	36,850

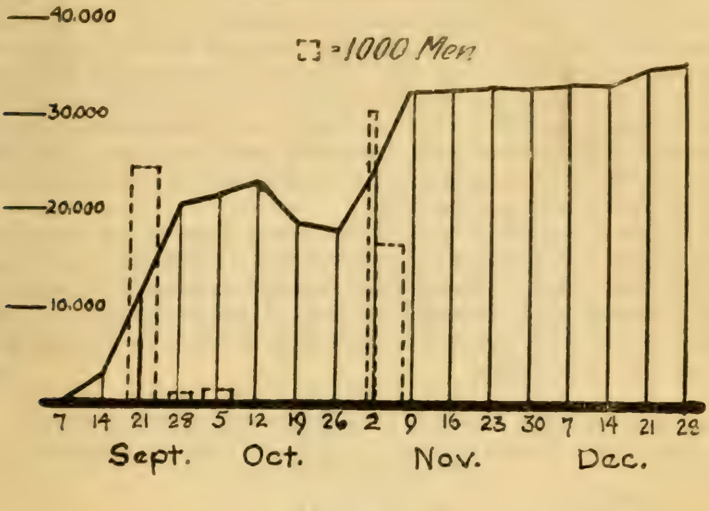
These men came from eastern Pennsylvania and Maryland and the District of Columbia. This territory includes the large cities of Philadelphia (1,700,000), Scranton (150,000), Reading (100,000), Wilkes-Barre (75,000), Harrisburg (75,000), Baltimore (580,000), Washington, D. C. (365,000). Taken as a whole the territory from which Camp Meade draws is 68.5 per cent urban, being exceeded in urbanity only by the territories tributary to Camps Upton and Devens.

The strength of the camp at different dates is shown in Chart 13. Beginning with the draft of September the camp grew rapidly to a strength of 23,000 on October 12, then diminished on account of transfers and rose again with subsequent drafts to 33,000. Colored recruits to the number of 2,154 were received in November; there were 3,336 present in December.

The diseases and consequent deaths at Camp Meade during 1917 are shown in Table 21.

Polygon of weekly strength of Camp Meade measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP MEADE

CHART NO. 13.

TABLE No. 21.—*Admissions and deaths, infectious diseases, Camp Meade, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	1	3	25	49	....	4	2	6
Broncho-pneumonia	....	1	4	8	....	....	1	1
Measles (uncomplicated)	1	6	48	112	....	....	....	....
Measles and lobar pneumonia	....	....	....	....	....	....	....	....
Measles and broncho-pneumonia	....	1	....	1	1	....	....	1
Measles and other complications	....	....	1	....	....	....	....	....
German measles	1	....	8	157	....	....	....	....
Mumps	....	1	11	43	....	....	....	....
Scarlet fever	....	....	5	5	....	....	....	....
Typhoid fever	....	....	....	....	....	....	....	....
Tuberculosis	2	13	41	32	....	....	....	....
Cerebrospinal meningitis	....	....	1	5(6)	....	1	5	6
Chancroid	....	19	33(9)	23(9)	....	....	....	....
Syphilis	11	24	58(51)	44(41)	....	....	....	....
Gonorrhea	17	191	317(56)	178(62)	....	....	....	....
Total	33	259	668	775	1	5	8	14

[1] Figures in parentheses indicate number of colored patients in venereal disease only.

The amount of communicable diseases of any sort was small, owing to the relative immunity of the troops, who came largely from cities. Here as elsewhere the proportion of admissions for venereal diseases among the colored recruits was relatively high.

5. CAMP LEE, VA.

The site of Camp Lee is a plateau about 160 feet above sea level. On its western margin it is bounded by the tidal estuary of the Appomattox River. The soil is a sandy loam. The soil drainage is excellent. The camp is situated about 3 miles from Petersburg (of about 25,000 inhabitants) and about 20 miles from Richmond, a city of a population of about 140,000. The upland is well drained; but there are some mosquitoes, probably chiefly from the salt marshes near the mouth of the Appomattox River. The average July temperature is about 78°, that of December is 30°, and of January, 38°. That of October, 1917, was the lowest on record for that month; it fell to 28° on the 31st. Precipitation exceeded the normal. November was unusually cold and dry. In December records for low temperature were broken, the temperature falling to 2° below zero on the 30th.

Camp Lee is supplied with water from Petersburg by means of wooden pipes. The water comes from the river and is chlorinated so that it is quite safe; though the supply eventually proved inadequate. Sewage was disposed of into a tributary of the river, a tidal estuary. This created a nuisance, so that a sewage-disposal plant had to be installed.

Polygon of weekly strength of Camp Lee measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]

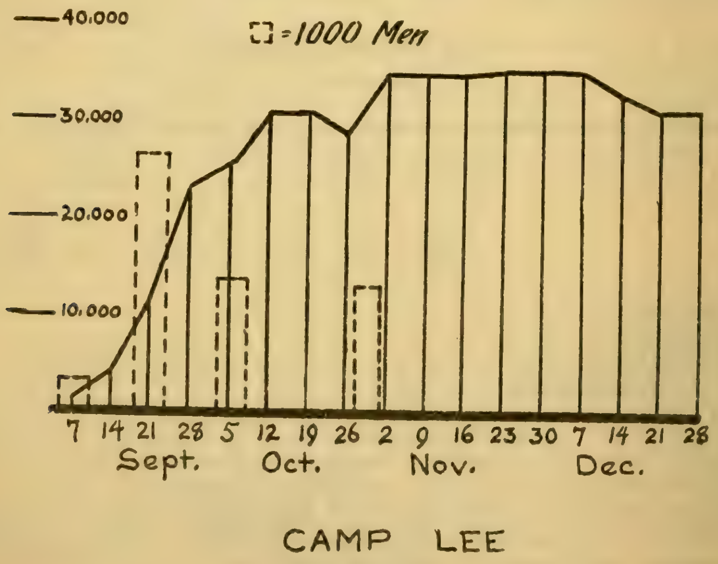


CHART No. 14.

To Camp Lee were called from civil life the following contingents:

	Men.
Sept. 5–10	2,340
Sept. 19–24	18,721
Oct. 3–8	9,748
Oct. 27– Nov. 1	9,050
Total	39,859

These men came from western Pennsylvania, from Virginia, and West Virginia. This territory includes the southern part of the mountain ridges of Pennsylvania, the mountains and valleys of the

Virginias, extensive farm areas in northwest Pennsylvania, eastern Virginia, and western West Virginia. The northwestern counties of Pennsylvania (except Erie) and the mountain counties of this section for the most part average under 50 persons to the square mile. Three-fourths of the counties of West Virginia and Virginia have under 50 to the square mile. The large cities are Pittsburgh (about 750,000), Erie (about 75,000), Richmond (about 140,000), Altoona (about 55,000), Johnstown (about 55,000), Norfolk, Va. (about 75,000), and various other places of 50,000 to 10,000 inhabitants. Thus of the 39,000 men called to Camp Lee a little over one-third came from considerable cities.

The strength of the camp at different dates is shown in Chart 14—from its first increment of 3,000 at the beginning of September to the middle of October, when there were 31,000 at the camp, and on into November, when 35,000 were present. Of the Pennsylvania recruits about 3 per cent were negroes; of the Virginian, about 30 per cent.

The leading diseases at Camp Lee were as follows:

TABLE NO. 22.—*Admissions and deaths, infectious diseases, Camp Lee, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	2	1	17	37		4	5	[illegible]
Broncho-pneumonia				12			1	1
Measles (uncomplicated)	3	1	206	218				
Measles and lobar pneumonia			3	6			5	5
Measles and broncho-pneumonia			1	8		1	3	4
Measles and other complications			5	4				
German measles			10	249				
Mumps	1	7	276	990				
Scarlet fever								
Typhoid fever		2			1			1
Tuberculosis		12	24	34				
Cerebrospinal meningitis		3	2	4				
Chancroid	10	11	20(5)	8(2)				
Syphilis	8	22(1)	15(11)	39(15)				
Gonorrhea	38	190(11)	120	62(18)				
Total	62	261	715	1706	1	5	14	20

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

On December 28 the noneffective rate was the highest of any National Army camp with the exception of Pike and Funston.

Measles became epidemic in November, but was complicated by relatively little pneumonia, probably owing both to retention of measles cases in hospital until completely recovered and also to the fine environmental conditions. On the other hand there were a number of middle-ear infections following measles. An epidemic of general streptococcic infections with local manifestations, best defined as a polyserocitis, occurred at the end of the year.

Pneumonia began to increase toward the middle of December; the types were not differentiated until that time. There were only about 11 per cent deaths. Toward the end of December a number of patients were admitted to the hospital with various septic infections, purulent empyema, peritonitis and pyopericardium. In some instances (but not in all) autopsy showed a primary broncho-pneumonia.

Venereal diseases: A large proportion existed prior to enlistment. This was especially noticeable among the colored troops.

6. CAMP TAYLOR, KY.

Camp Taylor is located about 5 miles south of Louisville, Ky., a manufacturing city of 230,000 inhabitants. The terrain is rolling, about 500 to 530 feet above sea level, and drains toward the city. The soil is loam over red clay.

The temperature was abnormally low (as at most other places in the North) during November and December, reaching 6° on the 9th of December. There was a shortage of rainfall, but a heavy snowfall kept the ground covered during most of December.

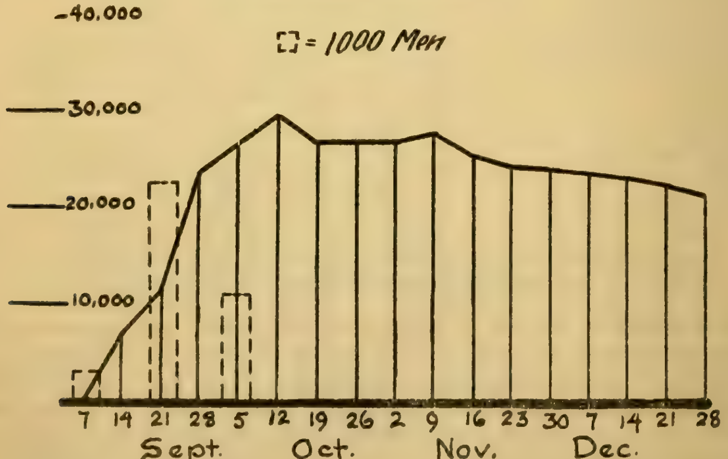
The water supply is derived from the city system. It is taken from the Ohio River and is sedimented, filtered, and chlorinated. It is abundant and excellent in quality. The sewage is disposed of through the city's trunk sewer.

To Camp Taylor were called from civil life the following contingents:

	Men.
Sept. 5–10	2, 117
Sept. 19–24	16, 927
Oct. 3–8	8, 463
Total	27, 507

Polygon of weekly strength of Camp Taylor measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP TAYLOR

CHART No. 15

The men came from Kentucky, Indiana and southern Illinois. This territory included such cities as Louisville (240,000), Covington (60,000), Indianapolis (280,000), Evansville (75,000), Fort Wayne (75,000), Terre Haute (75,000), South Bend (65,000), and Springfield, Ill. (60,000). The territory from which the drafted men came is about 33.7 per cent urban, standing eleventh in the series of urbanity of the 16 National Army camps. The population of Kentucky is 90 per cent white, and 92 per cent of the whites are of native parentage. They are largely of Scotch or Scotch-Irish origin. Of the population of Indiana, all but 2 per cent are white and 78 per cent of these are of native parentage. The foreign white stock is half German, 10 per cent Irish, 7 per cent English and about 7 per cent Austro-Hungarian. In southern Illinois the population is about 90 per cent white of native parentage.

The strength of the camp at different weekly intervals is shown in Chart 15. From its beginning in early September the camp strength rose quickly to 29,000 on the 12th of October and then slowly declined to 21,000 at the end of the year. There were never many colored troops at the camp.

The leading diseases and consequent deaths at Camp Taylor are given in Table 23.

TABLE No. 23.—*Admissions and deaths, infectious diseases, Camp Taylor, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	2	33	21	46	....	1	5	6
Broncho-pneumonia	....	6	1	12	....	....	2	2
Measles (uncomplicated)	....	90	541	342	....	....	....	....
Measles and lobar pneumonia	....	....	6	1	....	....	....	....
Measles and broncho-pneumonia	4	....	16	23	2	6	5	13
Measles and other complications	....	3	40	8	....	....	....	....
German measles	....	....	5	42	....	....	....	....
Mumps	....	16	50	44	....	....	....	....
Scarlet fever	....	....	....	....	....	....	....	....
Typhoid fever	1	3	....	....	....	....	....	....
Tuberculosis	3	40	46	57	....	....	....	....
Cerebrospinal meningitis	....	1	14	8	....	1	1	2
Chancroid	14	34	40(1)	18	....	....	....	....
Syphilis	43	98(4)	52	30(1)	....	....	....	....
Gonorrhea	146	232(2)	160(2)	68(2)	....	....	....	....
Total	200	566	995	702	2	8	13	23

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The principal disease was measles, which likewise caused a heavy morbidity in Kentucky troops at the outbreak of the Civil War. No deaths occurred from measles directly nor from the 7 cases where lobar pneumonia supervened. But from the 43 cases where broncho-pneumonia was a complication to measles 13 deaths followed. Though there were nearly half as many cases of primary broncho-pneumonia as of broncho-pneumonia complicating measles, there were only about one-sixth as many deaths. Primary lobar pneumonia also had only a low case morbidity (6 per cent). It is reported that among 52 empyema fluids, 27 showed a hemolytic streptococcus, 5 pneumococcus, 18 were sterile and 2 not examined. About 9 per cent of all sickness at camp was due to venereal disease.

7. CAMP SHERMAN, OHIO.

Camp Sherman is located in the flood plain of the Scioto River just outside of the limits of the city of Chillicothe, Ohio, a railroad center of 15,000 inhabitants, in an agricultural region.

The soil is sand and gravel, overlaid with a thin stratum of clay. The trend of drainage is toward the river, although in many places the ground is low and required extensive ditching. The proximity of the remount depot to the camps presented a difficult problem in sanitation because of the large amount of manure that required removal and the consequent facilities for fly breeding.

The water supply is obtained from five drilled and one dug well, located near the banks of the Scioto River. All wells are protected from surface drainage and well policed. Water is chlorinated before entering distribution mains. There have been no water-born diseases.

The region of Chillicothe was characterized in November by cool and very dry weather, and in December by the lowest temperature for that month on record, namely 13° below zero on the 11th of the month. The cold spell was exceptionally prolonged. The month was prevailingly dry, but there were heavy snow falls which kept the ground covered nearly all of the month.

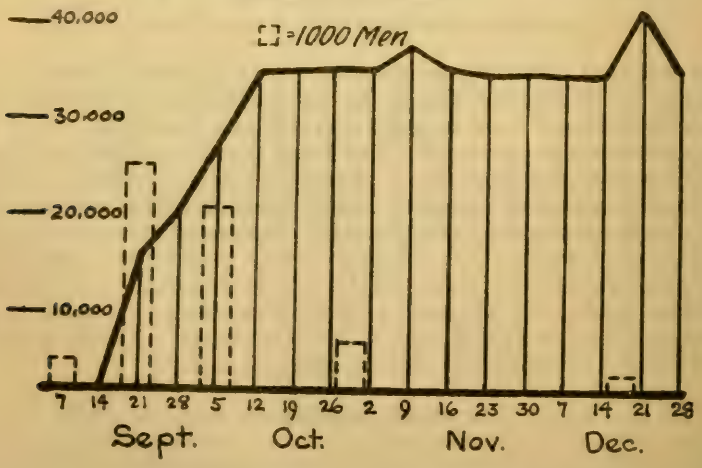
To Camp Sherman were called from civil life the following contingents:

	Men.
Sept. 5–10	2,154
Sept. 19–24	17,233
Oct. 3–8	12,925
Oct. 27–Nov. 1	2,957
Dec. 14–19	892
Total	36,161

These men came from Ohio and a few counties in western Pennsylvania. This territory includes the cities of Cleveland (660,000), Cincinnati (410,000), Columbus (215,000), Toledo (190,000), Dayton (130,000), Youngstown (110,000), Akron (85,000), Canton (60,000), Springfield, Ohio (53,000).

Polygon of weekly strength of Camp Sherman measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP SHERMAN

CHART No. 16.

Taken as a whole the population from which this camp was drawn was 50 per cent urban, being the third from the greatest urbanity of all National Army camps.

The strength of Camp Sherman at different dates is shown in Chart 16. Owing to large increments within the first 30 days the strength rose to 35,000 and remained at about this point until, in the middle of December, it was increased by transfers and a small draft contingent to nearly 40,000. Of this number 2,032 were colored troops, which arrived in November; to these additions were made, bringing the total up to 3,314 colored troops in December.

The leading diseases at Camp Sherman are shown in Table 24.

TABLE NO. 24.—*Admissions and deaths, infectious diseases, Camp Sherman, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	3	27	54	67	1	4	7	12
Broncho-pneumonia	1	2	7	11				
Measles (uncomplicated)	2	9	46	149				
Measles and lobar pneumonia								
Measles and broncho-pneumonia								
Measles and other complications		1						
German measles		1	12	12				
Mumps		12	34	40				
Scarlet fever		1	5	9				
Typhoid fever	1							
Tuberculosis	4	21	15	71				
Cerebrospinal meningitis		1	[2] 4(2)	8(1)		3	1	4
Chancroid	10	42(1)	30(25)	36(2)				
Syphilis	29	83(20)	61(59)	24(5)				
Gonorrhea	102(1)	399(1)	259(51)	245(82)				
Total	153	624	684	797	1	7	8	16

[1] Figures in parentheses indicate number of colored troops in veneral disease only.
[2] In the table of "admissions" (Table 48) these cases are charged against the Third Ohio Infantry.

Admissions for gonococcus infection reached 1,140 from September till December, a total exceeded only by Camp Lewis and Camp Travis. All three camps housed a large population not augmented greatly by later draft contingents. Camp Sherman had a relatively high percentage of negro troops, which brought in a disproportionately large number of infections.

An epidemic of measles started in December with 149 cases and did not abate until the middle of January, but it was of a mild type and no pneumonia followed.

Thirteen cases of typhoid fever developed in the cantonment during the year. Of these, 12 cases were in Company H, Third Ohio Infantry.[1] This company arrived at Camp Sherman on August 16 and immediately went into barracks. The company had been in camp at Springfield, Lima, and Tiffin, Ohio, for four and one-half months doing guard duty. A condemned well was near the camp site at Springfield, and the men frequently drank water from this well. All these cases were in men who had not received typhoid prophylaxis, and all developed between August 21 and September 5. One case was contracted at Prospect, Ohio, and the man had received no typhoid prophylaxis. All cases of typhoid fever were transferred to Columbus Barracks, Ohio, for treatment.

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[1] In the table of "admissions" (Table 48) these cases are charged against the Third Ohio Infantry.

Cerebrospinal meningitis.—Of this disease there were 16 cases and 4 deaths, a mortality of 25 per cent. On November 10 a case of meningitis developed in Company M, Three hundred and twenty-ninth Infantry. At this time equipment was not on hand to do carrier work, but all members of this company were treated by regimental surgeons. On November 8 another case developed in this company. Fifty-four men in the same squad room were examined but no carrier found. On November 8 a case developed in Company A, Three hundred and twenty-ninth Infantry. All men in this organization were examined and two carriers were found, one of whom occupied a bed immediately adjacent to the one occupied by the men who developed meningitis. On November 13 another case developed in this organization. All members of the organization were examined and one carrier found. The remaining 10 cases were all isolated, no 2 of them occurring in the same organization or squad room. All cases of meningitis were placed in isolation to search for carriers. During November, four carriers were found, representing 1.2 per cent of the men examined. During December three carriers were found, representing two-tenths of 1 per cent of the men examined. Four known carriers of meningococcus have been rid of that organism in six days by one treatment per day. There were 10 companies from which cases of meningitis arose, and in these companies no subsequent cases developed after treatment was instituted.

The base hospital service is well organized, manned, and equipped. Up to December 31, 288 operations had been performed of a general surgical character.

Surgery of the eye, ear, nose, and throat, and dental work each had its own out-patient service in a separate pavilion designated as the "head house." This building was eventually very thoroughly equipped with the necessary instruments and appliances for carrying on the work of the different subsections, including a perfectly appointed operating room for eye surgery, and another for nose and throat, and five dental operating rooms, all having access to common waiting rooms for the use of convalescents coming from the various wards, as well as for out-patients.

In the section of ophthalmology the total number of cases examined and treated was 578. The average daily number was 23. Fifty-one of these were treated in hospital, on whom 31 operations were performed. Refractions, 168; glasses ordered, 123. In the section of oto-laryngology 2,789 treatments were given and 140 operations performed. In the subsection of genito-urinary diseases six wards were in use with an out-patient department on three days weekly, treating from 80 to 100 cases per day. Over 1,000 doses of salvarsan were given and an average of about 800 out-patient treatments were given per month. This section was well equipped with the necessary instruments and apparatus incidental to diagnosis and treatment in accordance with the most modern methods, including electrocystoscopy and ureteral catheterizations.

8. CAMP CUSTER, MICH.

Camp Custer is located about 5 miles south of Battle Creek, Mich., a manufacturing city of nearly 30,000 inhabitants. The site of the camp is a rolling plateau at the headwaters of certain streams flowing into the Kalamazoo River, and incloses several lakes. Ground was broken for construction June 27, 1917.

The temperature of the last three months of the year was below the average. A temperature of 16° F. below zero was reached on the 15th of December. November and December had less precipitation than usual. There was a total snowfall of 9 inches during December, and only nine clear days.

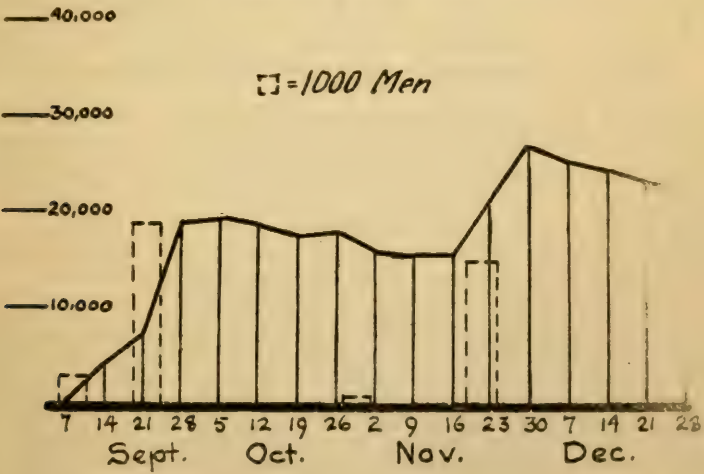
Camp Custer is supplied with water from eight wells, driven through terminal glacial deposits into sandstone. These wells have a capacity of 4,800,000 gallons in 24 hours, and the water is of excellent quality. The sewerage disposal system is of the Imhoff type, of which the affluent, after being treated with chlorine, is allowed to flow into the river.

To Camp Custer were called from civil life the following contingents:

	Men.
Sept. 5–10	1,800
Sept. 19–24	14,394
Oct. 27–Nov. 1	526
Nov. 19–24	10,796
Total	27,516

Polygon of weekly strength of Camp Custer measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP CUSTER

CHART NO. 17.

These men came from Michigan and the eastern rows of counties of Wisconsin, including especially the city of Milwaukee, 440,000 inhabitants. The chief Michigan cities are: Detroit, about 600,000 inhabitants; Grand Rapids, about 130,000; Saginaw, about 55,000; Flint, 55,000; and Bay City and Kalamazoo, each about 50,000. Of the whole territory from which the camp drew, the percentage of urbanity is about 53.

The strength of the camp at different dates is shown in Chart 17, from its first increment of 1,800 early in September to the end of the year. It rose quickly to 18,000 by the end of September; then gradually declined until the large increments of November 19 to 24 of nearly 11,000 brought the strength to its maximum for the year of 26,000. There were about 380 colored troops in the camp during December.

The leading diseases at Camp Custer are shown in Table 25:

TABLE NO. 25.—*Admissions and deaths, infectious diseases, Camp Custer, 1917.*

	Admissions.[1]				Deaths.
	September.	October.	November.	December.	
Lobar pneumonia	1	9	7	12	None.
Broncho-pneumonia				1	
Measles (uncomplicated)		25	109	176	
Measles and lobar pneumonia					
Measles and broncho-pneumonia				1	
Measles and other complications			3	4	
German measles	6	8	43	35	
Mumps	1	55	67	84	
Scarlet fever	2	4	2	3	
Typhoid fever					
Tuberculosis	8	14	12	30	
Cerebrospinal meningitis		3		1	
Chancroid	4	7	7(2)	9	
Syphilis	4	28	22(5)	26	
Gonorrhea	17	122(1)	270(38)	120(15)	
Total	43	276	587	517	

[1] Figures in parentheses indicate number of colored troops in venereal diseases only.

Most of the 29 cases of lobar pneumonia treated were severe, with two or more lobes involved. As early as laboratory facilities were available, pneumococcus types were determined. In the eight cases so studied up to December 31, 1917, type II was found in four, type IV in four. Thus far, no case of type I was found.

Measles became epidemic in November and German measles acquired important figures. The division surgeon reports:

> The cubical system, using suspended sheets, was put in use in the measles wards, December, 1917. Complications in measles were rare up to the latter part of December, 1917. Three cases developed otitis media, in one of which a mastoid required operation. There were no deaths. With the advent of colds, acute bronchitis, pharyngitis, and tonsillitis in the cantonment, a number of more serious complications have appeared in measles patients since January 1, 1918. The clinical course of these cases resembles that described in "measles pneumonia" in southern camps. The first case was a soldier three weeks after measles, with onset while he was being held sick in quarters after discharge from the hospital. The onset resembled a pneumonia, and pus was discovered by exploratory puncture after several days of illness. Operation was attempted, but the patient died. Autopsy showed that the entire process was not in any case a true lobar pneumonia but began as a streptococcus pleurisy, with an immediate empyema. Since this case all patients have been studied with the special object of detecting empyema early and instituting drainage by operation. At the date of this report (January 15) empyema has been found in 10 such cases, of which 8 were drained, 1 died, and 7 remained under treatment.

In three autopsies with empyema, the findings have been essentially the same, with hemolyticus streptococcus as the bacteriological cause in one case, and purulent peritonitis accompanying the empyema. It seemed possible that the peritonitis was simultaneous with, and not consecutive to, the empyema. The clinical course and pathology of these cases resemble that of certain cases seen in the severe epidemics of septic sore throat which occurred in several of our larger cities during the past winter. These cases have not been confined to patients suffering with measles, but have occurred in other soldiers, following tonsillar abscess or apparently beginning as a primary pleurisy with the pharynx and throat as possible infection atria.

It is believed that the forms of measles and pneumonia hardly express the sequence of events as a whole and that the large number of such cases of measles patients represent rather the development of an independent streptococcus infection quite general in distribution in camps, in a group of patients whose resistance has been depressed by measles.

9. CAMP GRANT, ILL.

The site of Camp Grant is an attractive one. It lies on a plain 20 to 30 feet above the Rock River, from 1 to 4 miles south of Rockford, Ill., a city of about 50,000 inhabitants, the third manufacturing city in the State. The altitude is about 72 feet above the sea. A broad flood plain at the junction of the Kishwaukee and Rock Rivers forms a fine ground for maneuvers. The upland is well drained; nevertheless, there are many small ponds, in some of which mosquito larvæ of the genus Anopheles have been found breeding.

The average July temperature is 73° F. with a maximum of 100° F. or more; that of January about 21° F. The month of December, 1917, was the coldest in many years, the thermometer falling to 15° below zero on the 15th of the month. The snowfall was somewhat above the average; there were 17 clear days.

Camp Grant is supplied with water from six wells at the flood plain of the river, west of the northern part of the camp. These wells reach a depth of about 153 to 185 feet. They yield pure water from below 140 feet. They have supplied over 2,000,000 gallons of water per day.

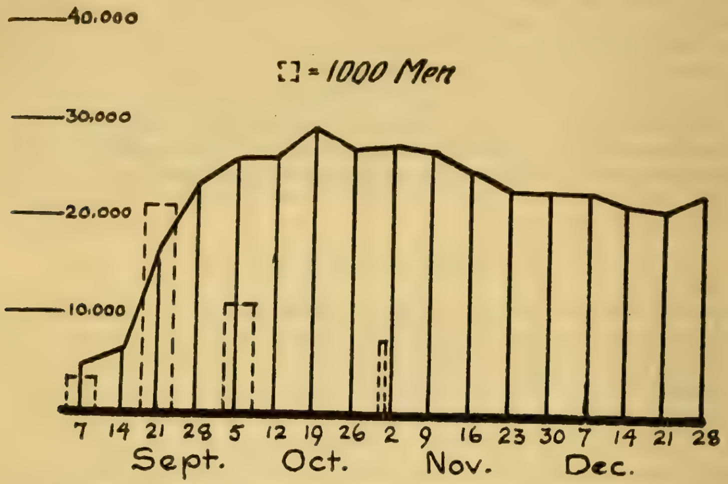
To Camp Grant were called from civil life the following contingents:

	Men.
Sept. 5-10	1,945
Sept. 19-24	15,557
Oct. 3-8	7,780
Nov. 1	1,061
Total	26,343

These men came largely from the 86 local boards of the city of Chicago; and also from the three northern tiers of counties of Illinois and from all the counties of Wisconsin, except those bordering on Lake Michigan. This territory includes in Illinois, besides Chicago (a city of about 2,000,000 whites and 59,000 colored), also Aurora, 35,000, and Rockford, 50,000. In Wisconsin it includes Superior, 45,000; Oshkosh, La Crosse, and Madison, each between 40,000 and 30,000; and smaller cities of about 10,000 inhabitants each. Of the 26,000 men called to Camp Grant about 75 per cent were from cities of over 10,000 inhabitants and about 64 per cent of all from Chicago proper or 71 per cent from Cook County, Ill. Thus the camp population was of prevailingly urban origin.

Polygon of weekly strength of Camp Grant measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP GRANT

CHART NO. 18.

The strength of the camp at different dates is shown in Chart 18. From its first increment of 2,000 on September 10, it rose to 22,000 by September 28, and to a maximum of about 30,000 by October 19. Since the Provost Marshal General called only 25,000 men, it is clear that a few troops were transferred from elsewhere. Chiefly through transfers and discharges the strength of the camp fell to about 21,000 near the end of the year. About 1,000 colored soldiers were inducted into the camp in November.

The leading diseases at Camp Grant had the following frequency:

TABLE No. 26.—*Admissions and deaths, infectious diseases, Camp Grant, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	1	18	15	21	1	2	1	4
Broncho-pneumonia		4	2	3				
Measles (uncomplicated)		4	13	139				
Measles and lobar pneumonia								
Measles and broncho-pneumonia				2				
Measles and other complications								
German measles				1				
Mumps		67	9	19				
Scarlet fever		2		1				
Typhoid fever	1							
Tuberculosis	2	15	22	43				
Cerebrospinal meningitis		1	5	1				
Chancroid	2	10	3(1)	3				
Syphilis	7	24	18(15)	23(5)				
Gonorrhea	21	128(1)	47(11)	67(3)				
Total	34	274	161	331	1	2	1	4

[1] Figures in parenthesis indicate number of colored troops in venereal disease only.

On December 28 the noneffective rate at Camp Grant was given as next to the least among the National Army camps. The least place was held by Camp Upton. Thus in these two camps the noneffective rate was in order of the size of the cities from which they drew their population. It may be noted that the rise in admissions to sick report from measles followed shortly after the negro troops entered the camp.

The base hospital at Camp Grant was opened officially August 12, 1917, using an infirmary building in zone 1, with a total of 10 patients, 5 of whom were venereal. The equipment consisted of a camp hospital of 24 beds, but as it was evident that the base hospital would not be in readiness for a month or more the camp-hospital equipment was supplemented by a field hospital, and on August 31 there were 9 patients in the hospital, including 1 pneumonia case and 1 venereal.

At the base hospital great difficulty was experienced in obtaining a satisfactory mess officer and an adequate number of cooks. The schools for cooks and bakers came to the aid of the hospital in emergencies.

10. CAMP DODGE, IOWA.

Camp Dodge is situated on a sandy ridge, about 2 miles from the Des Moines River and about 10 miles northwest of Des Moines, a city of about 100,000 inhabitants, the capital city of the State of Iowa and the center of a great agricultural country. The camp is connected with the city by an electric line. The soil is sandy and well drained.

The temperature of the last months of the year was nearly average, although the temperature fell to 17° below zero on the 29th of December. A snowfall of 11 inches during the month kept the ground covered a large part of the time.

Camp Dodge is supplied with water from driven wells. The water is chlorinated and of a very good quality. The sewage flows into the standard septic tank and the effluent discharges into a nearby stream.

To Camp Dodge were called from civil life the following contingents:

	Men.
Sept. 5–10	2, 258
Sept. 19–24	18, 066
Oct. 27–Nov. 1	3, 855
Total	24, 179

These men came from Iowa, Minnesota, North Dakota, and a zone across the middle of Illinois, north of Springfield. This area included the cities of Minneapolis and St. Paul, together over 600,000 inhabitants; Duluth, about 100,000; Des Moines, about 100,000; Sioux City, about 50,000; Davenport, about 45,000; and five other cities of over 25,000 inhabitants in Iowa; Peoria, 70,000; East St. Louis, 70,000; Quincy, 37,000; and four other cities of over 25,000 inhabitants. Taken as a whole the population was over 32 per cent urban.

The strength of the camp at different dates is shown in Chart 19. Formally opened on August 25 it leaped to nearly its maximum strength of 23,000 by the 28th of September, and thereafter slowly declined. In November many were transferred to other cantonments. In October there were 238 colored troops, in November 3,659, and in December 3,917.

The leading diseases at Camp Dodge are shown in the Table 27.

Polygon of weekly strength of Camp Dodge measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]

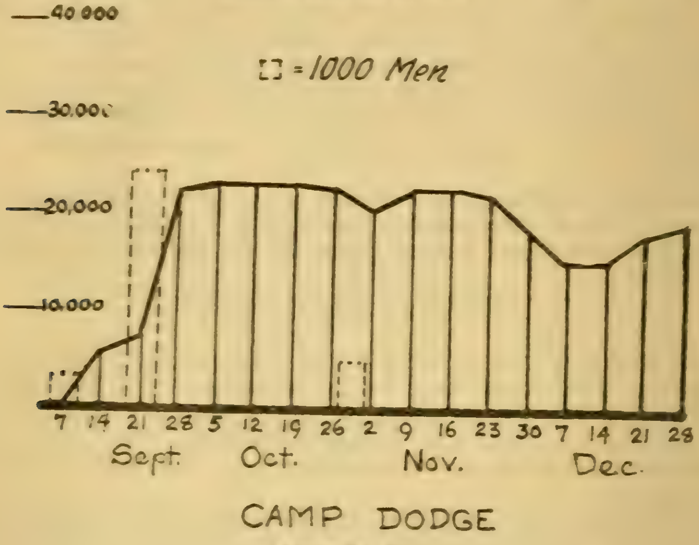


Chart No. [illegible]

TABLE No. 27.—*Admissions and deaths, infectious diseases, Camp Dodge, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	1	[illegible]	[illegible]	[illegible]	....	3	4	7
Broncho-pneumonia	....	[illegible]	[illegible]	1	1	....	1	2
Measles (uncomplicated)	....	20	[illegible]	[illegible]	....	....	....	....
Measles and lobar pneumonia	....	....	1	[illegible]	....	....	....	....
Measles and broncho-pneumonia	....	1	1	....	1	1	....	2
Measles and other complications	....	2	[illegible]	[illegible]	....	....	....	....
German measles	....	1	....	[illegible]	....	....	....	....
Mumps	....	[illegible]	[illegible]	[illegible]	....	....	....	....
Scarlet fever	....	1	[illegible]	[illegible]	....	....	....	....
Typhoid fever	....	1	....	....	....	....	....	....
Tuberculosis	[illegible]	[illegible]	71	[illegible]	....	....	....	....
Cerebrospinal meningitis	....	[illegible]	....	[illegible]	....	....	1	1
Chancroid	17	14 ([illegible])	[illegible]	11 ([illegible])	....	....	....	....
Syphilis	2	[illegible]	11 (12)	22 ([illegible])	....	....	....	....
Gonorrhea	[illegible]	[illegible]	[illegible]	[illegible]	....	....	....	....
Total	[illegible]	[illegible]	[illegible]	[illegible]	2	4	[illegible]	12

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The most striking figures in the preceding table are those for the venereal diseases. Of these the camp surgeon states:

> A high percentage existed on arrival and it was obvious that many of these men had deliberately contracted them or had neglected treatment of old infections under the impression that these conditions would be considered as causes of rejection and

exemption from service. Just after the increment of September 19 came in a venereal survey was made, when it was found that 24 per 1,000 were infected with venereal diseases. The rate would have been much greater if a more careful investigation had been practicable as few syphilitics were detected. However, we are convinced that our young men in civil life are infected with venereal diseases to a greater degree than the Army or Navy ever is. Our rates go up with the advent of new men and decrease in the intervals.

Measles began to appear in October, increased through November and December, and thereafter gradually diminished. Only a few cases of hemorrhagic type were observed and pneumonia as a complication was detected in only a few cases.

Pneumonia, primary and mostly of the lobar type, became prevalent in October; this caused seven deaths. The division surgeon ascribes the high incidence of this disease to inadequate clothing during the cold weather of October, to inadequate heating facilities, and to lack of warm water for bathing. The deaths from pneumonia were mostly among colored troops of the Three hundred and sixty-sixth Infantry.

Mumps reached a high rate for a northern camp. Half of the cases were in the colored regiment.

Of meningitis, from which the camp has been comparatively free, the division surgeon reports:

> Epidemic cerebrospinal meningitis has given us no trouble. Carriers were promptly removed to the hospital and retained until three negative cultures were obtained. No carriers developed the disease and no relation could be established between detected carriers and cases with the disease. All cases entering the base hospital were of a very severe type, the majority on entrance were in a comatose condition. The serum has been given promptly, and at 12-hour intervals during the first few days. The mortality, however, has been high. It is difficult to account for this mortality, except on the basis of inactivity of the serum, as until recently we were unable to obtain the Rockefeller serum.

11. CAMP FUNSTON, KANS.

Camp Funston is located on the left bank of the Kansas River about 5 miles from Junction City (a town of about 6,000 inhabitants) and about 2 to 3 miles beyond Fort Riley. The barracks are built on the flood plain of the river, and the department headquarters on the northwest slope of the river valley. The soil is a fine loam or river deposit. The surrounding country is well drained and without standing ponds or marshes. The elevation is about 1,000 feet above the sea.

The July temperature frequently reaches 100° and has reached 115°, and in January the temperature usually falls below zero and it has fallen to 25° F. below zero. In December, 1917, the lowest temperature was 10° below zero and the mean for the month was 6° below the normal. There was no precipitation, but only 11 clear days.

The water supply is obtained from driven wells, which showed some signs of contamination; consequently the water has been treated with chloride of lime. The sewage of the camp is discharged into the river, a procedure justified by the considerable distance to the next city below the camp.

To Camp Funston were called in 1917 from civil life the following contingents:

	Men.
Sept. 5–10	2,327
Sept. 19–24	18,606
Oct. 3–8	17,306
Nov. 1	1,597
Total	39,836

These men came from Kansas, about 5,600; Missouri, about 16,000; Nebraska, about 7,100; South Dakota, about 2,300; Colorado, about 4,200; New Mexico, about 2,000; and Arizona, about 3,000. All of these came from rural communities save St. Louis, about 4,000; Kansas City, about 800; Omaha, about 1,000; Denver, about 310; and Pueblo, about 370. Altogether about 6,480, or 16 per cent of the population of the camp, was urban in origin. Thus the camp population was prevailingly of rural extraction.

The strength of the camp at different dates is shown in Chart 20. Its first increment of 2,000, which entrained from the 5th to the 10th of September, was slow in arriving (on account of great distances to be traveled) and was tardily counted. A call for 25,000 was followed by a second call in two weeks for 23,000, so that by the middle of October about 44,000 men and officers were in the camp, of whom 147 were colored. A meningitis outbreak occurred at the end of October, increased to 20 new cases in the week ending November 23, and then decreased. Meanwhile the crowding in the camp was relieved by transfer until the strength of the camp fell to about 25,000 at the end of the year.

Polygon of weekly strength of Camp Funston measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the smal rectangle above the polygon.]

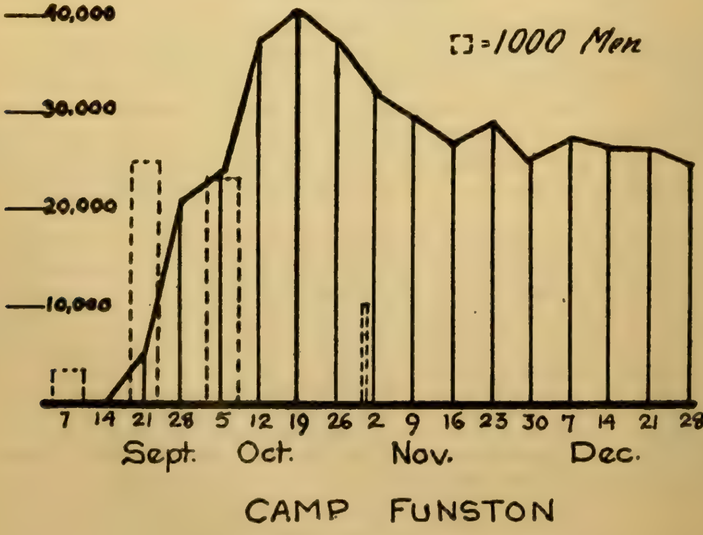


CHART No. 20.

The frequency of the leading infectious diseases at Camp Funston was as follows:

TABLE NO. 28.—*Admissions and deaths, infectious diseases Camp Funston, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	2	54	58	16	5	2	1	8
Broncho-pneumonia		2	6	6		2	4	6
Measles (uncomplicated)	1	22	148	62		1		1
Measles and lobar pneumonia			1	2		1	1	2
Measles and broncho-pneumonia		3	7	4		5	3	8
Measles and other complications		1	6	1			1	1
German measles		4		15				
Mumps	1	35	21	9				
Scarlet fever		1	2	1				
Typhoid fever		1						
Tuberculosis	7	19	19	9				
Cerebrospinal meningitis		16	21	1	2	9		11
Chancroid	12	28	2	0(1)				
Syphilis	23	89	22(1)	18(4)				
Gonorrhea	36	534	65(1)	47(1)				
Total	82	809	380	197	7	20	10	37

[1] Figures in parentheses indicate number of colored troops in venereal diseases only.

For the week ending December 21, weekly report, the noneffective rate at Camp Funston was given as the highest of any camp for that week. The diseases which caused most concern, because exceptionally high, were, first, the cerebrospinal meningitis, of which the revised figures give 16 admissions in October, 21 in November, and 1 in December, with a total of 11 deaths from this fatal disease. Secondly, measles which first became prevalent at the opening of November, increased to 338 cases during the week ending December 28, and soon thereafter decreased. Pneumonia, which so often in the camps follows upon measles, did not reach the large figures that appeared in Camps Travis and Bowie (February, 1918). Though the death rate was high in December it did not reach half that of some of the southern camps. To summarize: infectious diseases spread at Funston in the explosive fashion characteristic of camps full of a rural, nonimmune population. But there was something about conditions, or perhaps the type of measles, which prevented heavy onset of pneumonias, following measles.

The conditions that accompanied the epidemics of meningitis and measles at Camp Funston were carefully studied. The Surgeon General called attention to the fact that the territory which was tributary to the camp was a notorious meningitis center. Apparently through some sort of miscalculation, the camp was crowded far beyond its capacity, in consequence of exceptionally large increments, following each other closely. Soldiers slept in upper and lower bunks with far less than the standard 500 cubic feet of air space to a man. The month of all this crowding was the coolest October on record, the temperature falling to 8° F. below freezing. There was a great shortage of warm clothing and blankets. The ground was extremely dry and a fine dust from the silt of the flood plain filled the air and aggravated the bad situation. November was dry but not so unseasonably cold as October, which may account for the temporary drop in the number of new cases of measles toward the end of November.

December was exceptionally dry and cold. Thus meteorological conditions tended to exaggerate the symptoms of danger of contact of soldiers and thus to facilitate the spread of measles.

12. CAMP LEWIS, WASH.

Camp Lewis is situated at American Lake, approximately 13 miles south of Tacoma, a city of about 110,000 inhabitants. The soil is porous, absorbing all surface drainage. The water is supplied from great springs, of which the largest has a capacity of 3,500,000 gallons. Two wells have a pumping capacity of 1,140,000 gallons together. The water is of excellent quality. The sewage passes by gravity into Nisqually Bay, a branch of Puget Sound.

The western part of Washington has an equable climate. The lowest temperature for December was 28° F. There was a rainfall that month of 15.3 inches, above double the average, and practically no snow fell. There was only one clear day. The "constant cold rains" aggravated certain throat inflammations.

To Camp Lewis were called from civil life the following contingents:

	Men.
Sept. 5–10	2, 275
Sept. 19–24	18, 184
Oct. 3–8	18, 185
Oct. 27–Nov. 1	456
Nov. 2–7	6, 363
Total	45, 463

Polygon of weekly strength of Camp Lewis measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]

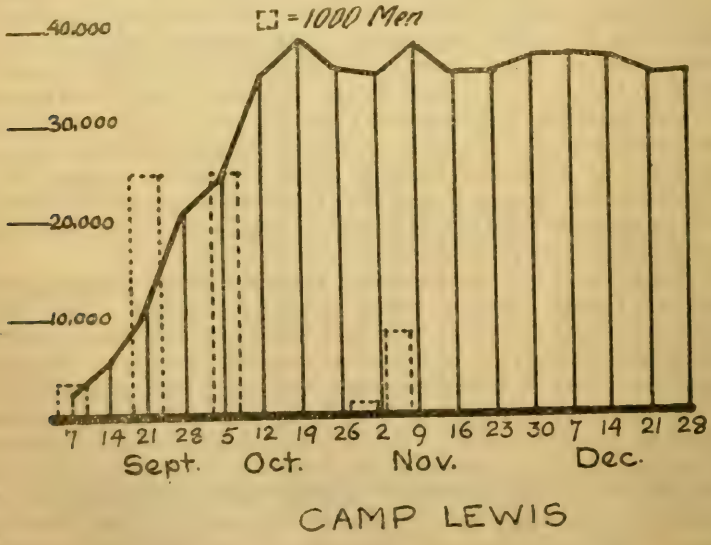


CHART No. 21.

These men came from Washington, Oregon, Idaho, Montana, Wyoming, Utah, Nevada, and California. This area includes such cities as Seattle (340,000), Spokane (145,000), Tacoma (110,000), Portland (275,000), Butte City (145,000), Salt Lake City (115,000), Ogden (35,000), Los Angeles (480,000), San Francisco (460,000), Oakland (200,000), Sacramento (65,000), Berkeley (55,000), and San Diego (53,000), besides numerous smaller cities, especially in California. Taken as a whole, the territory from which Camp Lewis draws is 51 per cent urban or about the same as Camp Custer.

The strength of the camp at different dates is shown in Chart 21. Owing to huge increments of the latter half of September and early October the population mounted quickly to nearly 40,000 by October 15, and then slowly fell to 35,000 by the end of the year. The colored troops numbered about 500 during October, November, and December.

The leading diseases at Camp Lewis are shown in Table 29.

TABLE NO. 29.—*Admissions and deaths, infectious diseases, Camp Lewis, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	1	32	32	24	3	5		8
Broncho-pneumonia	1	7	10	6				
Measles (uncomplicated)	2	11	41	79				
Measles and lobar pneumonia				1			1	1
Measles and broncho-pneumonia								
Measles and other complications		1	1	3				
German measles	1	1	140	1,063				
Mumps	1	15	39	82				
Scarlet fever			11	80				
Typhoid fever		2						
Tuberculosis	4	47	48	29				
Cerebrospinal meningitis		3	9	13		3	2	5
Chancroid	34	35	14(2)	6				
Syphilis	32	142(2)	55(2)	32				
Gonorrhea	342(1)	1,018(2)	365(2)	129(1)				
Total	419	1,318	771	1,548	3	8	3	14

[1] Figures in parentheses indicate number of colored troops in venereal diseases only.

The most striking feature of this table is the great number of cases of German measles (1,063 in December). In respect to the frequency of this disease the camp stands in a class by itself. Typical measles, on the other hand, was relatively infrequent. Camp Lewis had also the largest number of new admissions for gonorrhea of any camp (among the recruits of October). This exceptional rate for venereal disease was not maintained in later months. The division surgeon reports: "Arriving men showed a large percentage (2.73 per cent) of venereal disease, and it was decided to place all in camp hospital, the milder cases being sent to duty soon but continued under treatment." This undoubtedly accounts for the large number of venereal cases admitted to sick report in October and November. It is to be recalled also that the population was drawn largely from mining regions.

This camp was also visited by a small epidemic of scarlet fever, with no deaths reported. The division surgeon reports that nose and throat cases were so numerous that, while waiting in the outpatient clinic of the base hospital, patients with sore throats, beginning scarlet fever, were seated next to the patients with sore throat, beginning measles and other infectious diseases. Cross infections occurred, and it was thereupon ordered that all but emergency nose and throat cases should be treated at regimental infirmaries. Up to that time about 300 operations on hypertrophied tonsils alone had been performed.

Pneumonia.—As draft men arrived in successive contingents, efforts were made to secure floor and air space as ordered from Washington. Thus the incidence of pneumonia was undoubtedly controlled, since every other draft man promptly caught cold, particularly those coming to a cold, wet climate from warm, dry States. First cases of pneumonia were almost exclusively from dry, warm climates. The mortality rate remained low, although laboratory personnel were too fully engaged to attempt to divide pneumonia cases into groups. Nevertheless, No. 1 serum was occasionally used.

13. CAMP JACKSON, S. C.

This camp is situated about 5 miles from Columbia, S. C., the State capital, a city of about 30,000 inhabitants. The terrain is sandy and rolling, draining both to the southeast and northwest. A large swamp adjoining the western boundary of the camp and covering about 300 acres is traversed by Gill Creek. Another swamp on the camp site proper forms the headwaters of Wild Cat Creek. This had to be drained. Construction of the camp was begun on June 15, 1917, at which time the whole camp site was covered with woods and cotton fields. During the months of July and August, 1917, the contractor used between 7,000 and 10,000 men daily building barracks and clearing land.

The weather at Jackson was abnormally cool during September to December, 1917, and fell to 8° F. on December 30. The temperature fell to freezing during 21 days of the month. The autumn was dry. A snowfall of 2 inches occurred on the 12th of December.

Water is obtained from the city of Columbia. As the water supply came from a contaminated source and the filter beds were not functioning properly, it was chlorinated. A permanent sewage disposal plant was built, of which the effluent discharged into a small creek.

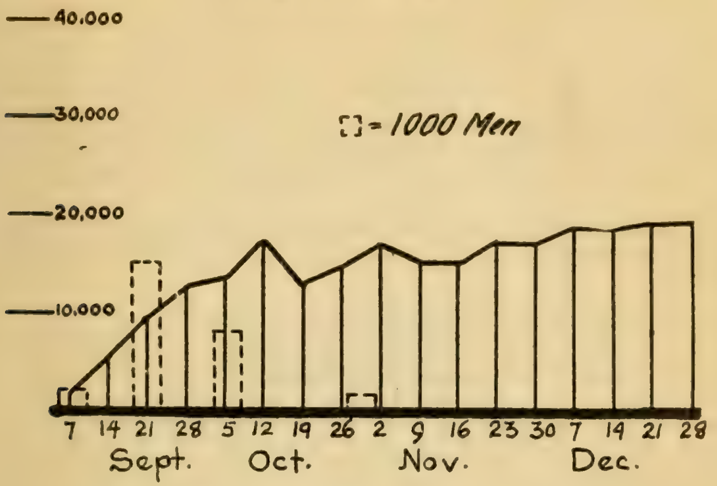
To Camp Jackson were called from civil life the following contingents:

	Men.
Sept. 5–10	1,619
Sept 19–24	10,858
Oct 3–8	5,407
Oct. 27–Nov. 1	1,008
Total	18,892

The men came from North Carolina, South Carolina, and Florida, whose combined quota amounted to 32,380. This territory comprises in North Carolina, 7 cities of over 10,000 inhabitants (largest, Charlotte, 40,000); in South Carolina, 5 cities of over 10,000 inhabitants (largest, Charleston, 60,000); in Florida, 4 cities of over 10,000 inhabitants (largest, Jacksonville, about 70,000). The territory drawn from is only about 17.5 per cent urban. Indeed this camp shows the smallest percentage of inhabitants from cities of any of the National Army cantonments.

Polygon of weekly strength of Camp Jackson measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]



CAMP JACKSON

CHART No. 22.

The strength of the camp at different dates is shown in Chart 22. From its first increment of 1,600 men in September it increased gradually, reaching a maximum of about 19,000 at the end of the year. 2,642 colored men entered the camp during October, 1,017 during November, and 2,266 during December, or a total of 6,325.

The leading diseases at Camp Jackson were as follows:

TABLE No. 30.—*Admissions and deaths, infectious diseases, Camp Jackson, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	September.	October.	November.	December.	October.	November.	December.	
Lobar pneumonia	3	8	20	29		2	4	6
Broncho-pneumonia		2	27	19	1	9	8	18
Measles (uncomplicated)	17	208	863	245			2	2
Measles and lobar pneumonia		3	8			3		3
Measles and broncho-pneumonia			29	7		16	4	20
Measles and other complications		4	46	22		1		1
German measles		6	364	69				
Mumps	24	53	82	358				
Scarlet fever				1				
Typhoid fever	1		1					
Tuberculosis		14	47	31				
Cerebrospinal meningitis			20	98(8)		5	32	37
Chancroid	5	4(2)	6(8)	8(4)				
Syphilis	4	6(3)	8(4)	17(4)				
Gonorrhea	80	82(5)	75(10)	36(6)				
Total	134	400	1,618	962	1	36	50	87

[1] Figures in parentheses indicate number of colored troops in venereal diseases only.

The most striking facts shown by this table are the great numbers of cases of measles, German measles, and mumps. The number of cases of tuberculosis was also relatively great and in December cerebrospinal meningitis had risen to the proportions of a great epidemic exceeding that experienced at any other camp. The epidemic burned itself out during the following two months. The reason for this epidemic is the nonimmunity of the rural troops. It is stated that meningitis appeared in the families of the workmen engaged in building the barracks at Camp Jackson before the troops began to assemble.[1] Of the men who had meningitis at this camp 31 per cent died.

As bearing on the epidemic of measles and meningitis in Camp Jackson the following statements are quoted from the report of the Division Surgeon:

> The hospital buildings were inadequate and incomplete even by the end of the year. Woolen clothing was available, but many men did not have it and were seen going about in cotton clothing in spite of freezing weather. The lack of warm clothing is probably promoting the transmission of disease by causing the men to congregate indoors and about stoves, but we did not hear complaint of suffering. The enlisted personnel of this camp seems to show an unusual amount of illiteracy, general ignorance, and ignorance of personal hygiene, all of which doubtless has aided in the propagation of disease. The enlisted personnel is, of course, mainly rural in origin and contains a relatively large proportion of men who have not had measles or mumps in childhood. In addition to those men, certain contingents have come from Camp Gordon and Camp Pike, and it appears that these were a potent factor in the introduction and spread of disease among susceptible men.
>
> *Pneumonia.*—Here, as in other camps, the prevalence of measles has been a principal factor in the causation of pneumonia. It is probable that considerably more than 40 per cent of all the cases of pneumonia accompanied or followed measles. The prevailing pneumonia at Camp Jackson was broncho-pneumonia, and the majority of these cases were consecutive to measles, and these were far more fatal than ordinary lobar pneumonia.
>
> The factors to be considered in the causation of pneumonia at this camp have been much the same as at other camps, with less overcrowding and less dust. Measles has been prevalent; the men did not have sufficient supply of warm clothing until recently and even now there is some deficiency. There has been trouble with the heating arrangements, and the cold set in early and was unusually severe for this climate. Hookworm infestations are widespread.
>
> *Measles.*—The total number of cases of measles was, to December 31, 1,452. The disease gained in September but did not assume epidemic proportions until the last week of October. It reached its maximum in the week ending November 23, when 528 new cases entered the hospital. Three deaths have been attributed to measles in addition to those dying of broncho-pneumonia.
>
> *Meningitis.*—Epidemic cerebrospinal meningitis made its appearance in this command November 15, 1917, and appeared in the person of a man coming to this camp from Camp Gordon. In November there occurred 20 cases, December 106 cases, and these two months give a total of 37 deaths from this cause. Epidemic cerebrospinal meningitis was certainly transferred to this division from Camp Pike, Little Rock, Ark., which began to send draft men here in November, 1917. Likewise cases occurred in men arriving here from Camp Gordon. In the case of men transferred from Camp Pike two men were removed from the train with fully developed cases of epidemic cerebrospinal meningitis present upon their arrival. It is certain that this infection came, at least in part, from these two sources of Camp Pike and Camp Gordon. From a study of the local situation it appears probable that the measles ward in the base hospital was a contributing factor to the spread of this disease in this camp, as in a well-recognized percentage of cases men coming from uninfected area of camp and being sent to the hospital would first develop measles at the hospital, recover from measles, and in the course of 14 to 16 days return to duty, after returning to duty develop meningitis within one to three days after their return, there being no other case of this disease in their companies. At least 24 of the early cases contracted the disease in the measles ward.

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[1] Vaughan and Palmer, 1918.

Venereal diseases.—These were nearly all brought in by recruits. Of the infections got by men already in the service seven were contracted in October, seven in November, and five in December.

14. CAMP GORDON, GA.

Camp Gordon is located at Chamblee, Ga., within 10 miles of the capital city of Atlanta (154,839). The region is agricultural and is on the edge of the black belt of the State. The ground of the cantonment is naturally rolling, with some turfed and wooded areas. Prior to occupancy by the Government the site was dotted over with unsanitary farmhouses, barns, and outbuildings, from which wells and streams were contaminated and around which were numerous breeding places for flies. These unsatisfactory conditions were remedied during the construction of the camp by tearing down all old buildings, closing polluted wells, placarding streams, burning over and plowing under suspected places, and thoroughly policing the entire area.

The water supply is obtained from Atlanta, being delivered to the camp through an 18-inch main. The city supply is taken from the Chattahoochee River, sedimented in large impounding areas, and made fit for use by treatment. The sewage plant consists of the standard septic tank, sprinkling filters, and secondary sedimentation tanks. It worked unsatisfactorily. One menace to the health of the camp was the unsanitary condition of the cheap lunch and soft-drink stands in the village of Chamblee.

November at Camp Gordon, though colder than is usual for the region, was a pleasant month, with 16 clear days. Temperature ranged from 73° on the 8th to 25° on the 25th. December had the lowest temperature rate for that month, recorded in Georgia for 40 years. Temperature ranged from 68° on the 2d to 8° on the 9th. Rainfall was greatly below normal; there was but a slight snowfall. There were 17 clear days.

To Camp Gordon were called from civil life the following contingents:

	Men.
Sept. 5–10	1,923
Sept. 19–24	12,106
Oct. 3–8	7,271
Total	21,600

These men were from the States of Georgia, Tennessee, and the southeastern counties of Alabama. The territory included Atlanta (154,839), Memphis (131,105), Nashville (110,364), Savannah (65,064), Augusta (41,040), Chattanooga (44,604), Macon (40,665), Montgomery (38,136), and Knoxville (36,346). Taken as a whole the territory from which Camp Gordon drew its men is 18.5 per cent urban, ranking next to the last of the cantonment areas in order of urbanity.

The strength of the camp at different dates is shown in chart 23.

The population was extremely irregular, falling off abruptly in October and then rapidly increasing by transfers to a maximum of 38,000 in the middle of December, after which it abruptly declined again. Approximately 1,700 colored recruits entered the camp in October; there were 700 remaining in December.

Polygon of weekly strength of Camp Gordon measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]

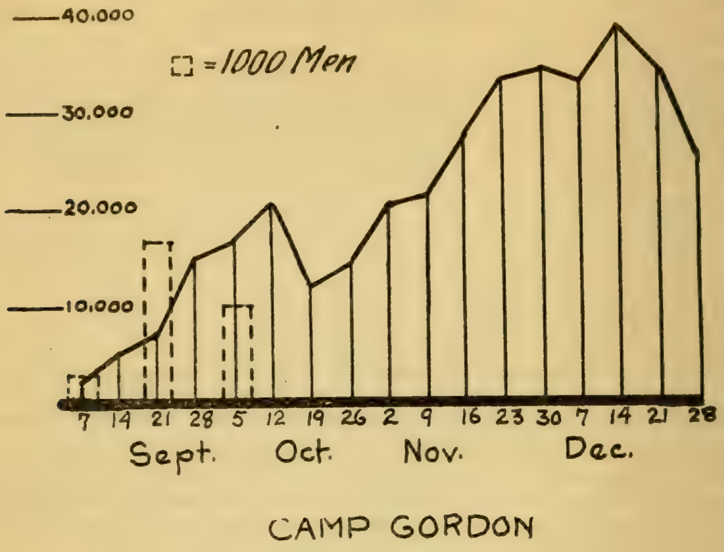

CHART NO. 23.

The leading diseases at Camp Gordon are shown in the accompanying table:

TABLE NO. 31.—*Admissions and deaths, infectious diseases, Camp Gordon, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	....	13	14	18	2	3	1	6
Broncho-pneumonia	....	1	6	7	1	1	....	2
Measles (uncomplicated)	15	60	195	495	....	....	....	....
Measles and lobar pneumonia	....	....	1	6	....	1	2	3
Measles and broncho-pneumonia	....	....	1	21	....	1	12	13
Measles and other complications	....	1	2	3	....	....	....	....
German measles	....	18	95	114	....	....	....	....
Mumps	1	10	13	31	....	....	....	....
Scarlet fever	....	....	....	....	....	....	....	....
Typhoid fever	1	....	....	....	....	....	....	....
Tuberculosis	3	12	42	82	....	....	....	....
Cerebrospinal meningitis	....	2	2	16	1	....	3	4
Chancroid	15	19 (9)	22 (7)	19 (9)	....	....	....	....
Syphilis	31	36	49 (16)	45 (10)	....	....	....	....
Gonorrhea	93	151 (118)	377 (40)	157 (14)	....	....	....	....
Total	159	450	882	1,047	4	6	18	28

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[1] Figures in parentheses indicate number of colored troops in venereal disease only.

Gonorrhea was responsible for the largest number of disease admissions from September to December, with measles ranking next. Camp Gordon stood fifth in the rate of incidence of both these diseases. Out of 285 new cases of venereal disease (the camp sanitary inspector reports) 259 were contracted prior to entering the service The measles epidemic reached 495 cases in December and did not begin to decrease until the middle of January. At first it was regarded as of a mild type, little complicated by pneumonia, but at the end of December and still more in January pneumonia following measles increased in frequency and fatality. At the end of the year clothing was still insufficiently supplied. Meningitis never reached such an alarming frequency as at Camp Jackson and the mortality was low. The cases were widely scattered throughout the camp. Every effort was made to secure early recognition of the disease and inspection of contacts. German measles was troublesome, totaling 114 cases in December. Admission of tuberculosis in December exceeded those of any other National Army cantonment except Camp Dodge.

15. CAMP PIKE, ARK.

Camp Pike is situated about 3 miles from the city of Little Rock, Ark., on a plateau 500 feet above sea level, between the Arkansas River and Five Mile Creek.

The weather at Camp Pike was dry and mild during November, 1917. In December it was exceptionally dry and cold; a temperature of 5° was reached on the 9th of the month and there were 12 clear days. There were no snowfalls.

The water supply of Camp Pike comes from the city of Little Rock. It is a mixture of clarified water from the Arkansas River and wells, the latter being used when the Arkansas River supply needs to be diluted on account of excess of sodium salts. The sewage was discharged into a septic tank and effluent ran down the bed of a small creek.

To Camp Pike were called from civil life the following contingents:

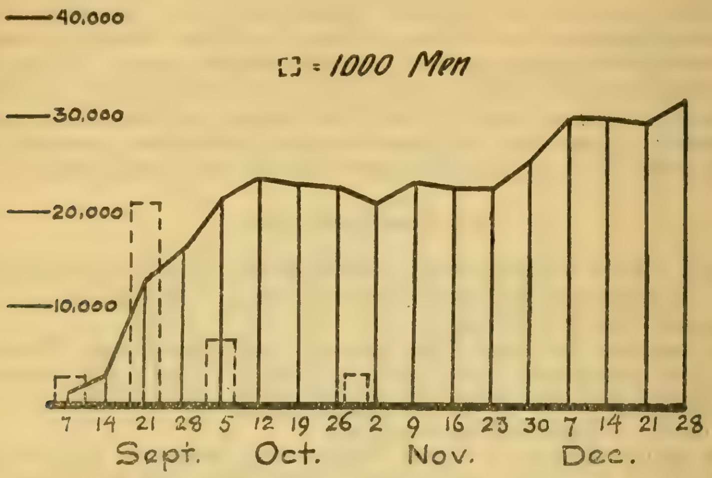
	Men.
Sept. 5–10	2,133
Sept. 19–24	15,755
Oct. 3–8	4,701
Oct. 27–Nov. 1	2,385
Total	24,974

These men came from the States of Arkansas, Louisiana, Mississippi, and the western part of Alabama. This territory includes Little Rock (50,000), Fort Smith (30,000), New Orleans (370,000), Shreveport (30,000), Meridian (25,000), Birmingham (150,000), and Mobile (60,000). Taken as a whole, the territory from which Camp Pike draws is 20.3 per cent urban, being near the last in rank of urbanity.

The strength of the camp at different dates is shown in Chart 24. The rise of strength was varied until October 12, when there were nearly 24,000 troops in camp. Most of the original command, consisting, as we have seen, of men drawn from a rural territory, was sent to southern militia camps as the epidemic of measles became severe, and it was gradually replaced at Camp Pike by drafts of men taken from cantonments farther north. Thus the strength slowly declined until November 25, after which it mounted by transfers from other camps to nearly 32,000 at the end of the year.

Polygon of weekly strength of Camp Pike measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the smal rectangle above the polygon.]



CAMP PIKE

CHART NO. 24.

The leading diseases at Camp Pike are given in Table 32.

TABLE NO. 32.—*Admissions and deaths, infectious diseases, Camp Pike, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	7	57	144	165	5	33	26	64
Broncho-pneumonia	1	4	18	41		6	2	8
Measles (uncomplicated)	42	935	1,826	1,266			1	1
Measles and lobar pneumonia		16	31	43	9	6	21	36
Measles and broncho-pneumonia		20	50	50	9	19	20	48
Measles and other complications	1	9	36	29				
German measles				1				
Mumps	4	1	123	344				
Scarlet fever		17	111	164				
Typhoid fever	3		1					
Tuberculosis	2	37	46	73				
Cerebrospinal meningitis		4	14(1)	11(2)	2	4	1	7
Chancroid	10	21(4)	16(7)	12(1)				
Syphilis	7	34(2)	29(9)	27(5)				
Gonorrhea	8	280(10)	308(12)	151(10)				
Total	85	1,451	2,782	2,395	25	68	71	164

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The high admission rate of Camp Pike, especially of measles, of its complications, and of primary lobar pneumonia, resulted in a visit by the Surgeon General on December 5, 1917. After citing the alarming figures of admissions to sick report and of deaths, the Surgeon General continues:

> The figures indicate a serious condition of affairs at this camp. The principal cause of measles, as has been pointed out in other camps, is that a large number of the troops come from the sparsely settled States, and have not had measles before.

> Of the 16 cases of meningitis occurring within the month, 10 came from Fort Riley. This is an illustration of the way one camp can infect another by means of cases brought by incoming troops. * * * Crowding in this camp I do not think exists to any appreciable extent. * * * Within the last 15 days 8,000 new men have been introduced into the camp. It is possible that when these 8,000 men begin to show infection, we will go through an epidemic similar to that which we have just passed. However, as most of these men come from the thickly populated State of Iowa, I do not think it probable that they will have measles, as several of the men have just been through the epidemic.
>
> One great difficulty here is lack of segregation. In Camp Bowie, for instance, if we get a case of meningitis in a tent of 9 men, it is a very easy matter to segregate these 9 men and determine whether or not they have been infected here. With a squad-room containing 120 men this is much more difficult.

Measles.—As the table shows, measles appeared in camp in September with 43 cases, rose to 980 in October, and to 1,943 in November; then diminished slightly to 1,288 in December. Practically the entire command was infected. The abatement of the epidemic resulted largely from the exhaustion of susceptible material. An attempt has been made to trace the origin of the measles to the First Arkansas Infantry, which guarded the camp during construction and which had suffered severely from measles. Measles were also prevalent in Little Rock and adjacent territory.

Pneumonia.—As the table shows, primary lobar pneumonia was common and the case mortality high, probably not far from 20 per cent. For lobar pneumonia following measles, the case mortality was over 40 per cent. Primary broncho-pneumonia was fatal in 13 per cent of the cases and broncho-pneumonia following measles in 40 per cent. On account of the crowding of the base hospital by measles, many cases were discharged prematurely and consequently were specially susceptible to pneumonia.

In the pneumonia wards each bed was screened; paper handkerchiefs to be used only once were provided, and the ward was scrubbed daily with an antiseptic solution. There were 54 cases of empyema, complicating pneumonia, with 9 deaths. Many ear complications followed measles. At the base hospital 30 operations were performed for acute mastoiditis.

Scarlet fever.—There was an epidemic of this disease, as many as 196 being in the hospital on December 15. In many cases this was complicated by pneumonia.

Mumps.—An epidemic started in November, with 123 cases. This increased to 344 in December. With the new year the epidemic declined. No deaths occurred, but some cases of orchitis.

Venereal diseases.—The high venereal rate appearing in the statistics is due to old cases found in drafted men. The admission rate for new cases, acquired since connection with camp, is stated to average 3 per 1,000.

Meningitis.—There were 32 cases of this disease and 7 deaths. Of these cases approximately 11 came originally from Camp Funston, with a transfer of troops. The cases occurred spasmodically and there was no area which could be located as a focus of infection. A considerable number of the meningitis cases have followed suppuration of the middle ear, consequent upon infected tonsils. The camp surgeon states that many patients refuse tonsillectomy, some of whom subsequently die of a streptococcic meningitis. He lays stress on the seriousness of the psychological barrier.

16. CAMP TRAVIS, TEX.

Camp Travis lies to the northeast of San Antonio, Tex., a railroad center of about 100,000 inhabitants. The city line includes nearly all the camp buildings. The elevation is 740 feet above sea level. The natural physical conditions and the conveniences of water supply and sewer connections give the location unusual advantages as a site for an Army cantonment.

During November the weather at Camp Travis was dry and warm with 22 clear days and a minimum temperature of 41° on the 20th. In December it was still dry but cooler, a minimum of 19° being reached on the 30th. There were 14 clear days. There was no snowfall in either month and rainfall was far below normal.

To Camp Travis were called from civil life, the following contingents:

	Men.
Sept. 5–10	2,305
Sept. 19–24	1,834
Oct. 3–8	10,000
Oct. 27–Nov. 1	3,666
Total	17,805

These men were from the States of Oklahoma and Texas. The territory included Oklahoma City (65,000), Muskogee (25,000), San Antonio (100,000), Dallas (95,000), Houston (85,000), Fort Worth (75,000), El Paso (50,000), Galveston (40,000), Austin (30,000), Waco (28,000). Taken as a whole the territory from which Camp Travis draws is 23 per cent urban, ranking fourth from the last in order of urbanity.

Polygon of weekly strength of Camp Travis measured by scale on the left.

[Increments are indicated by dotted rectangles of which the unit, 1,000 men, is represented by the small rectangle above the polygon.]

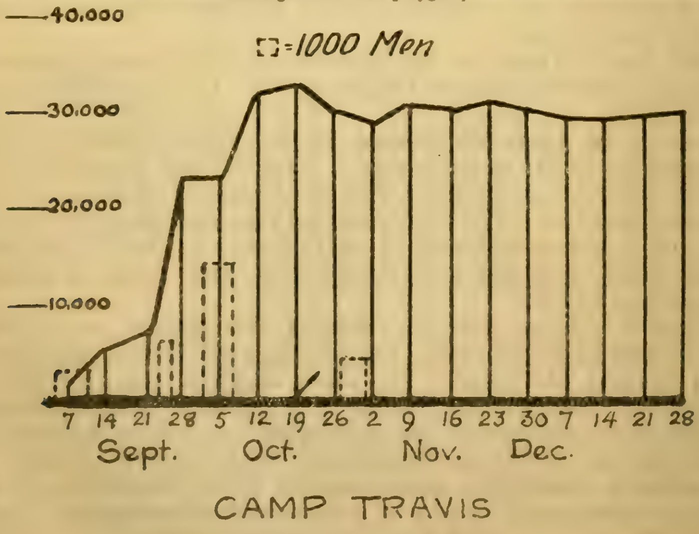


CHART No. 25

The strength of the camp at different dates is shown in Chart 25. After the induction of draft contingents, the population rose to 30,000 and remained nearly constant to the end of the year. This camp had the greatest number of negro troops of any camp in its November to December population, namely, 7,600.

The leading diseases at Camp Travis are given in Table 33.

TABLE No. 33.—*Admissions and deaths, infectious diseases, Camp Travis, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	2	62	119	189	3	12	15	30
Broncho-pneumonia	1	7	15	25	....	1	3	4
Measles (uncomplicated)	4	31	2,510	1,303	....	2	1	3
Measles and lobar pneumonia	....	2	30	35	....	4	5	9
Measles and broncho-pneumonia	....	1	33	18	1	14	11	26
Measles and other complications	....	....	98	79	....	2	....	2
German measles	....	....	9	10	....	....	....	....
Mumps	3	45	338	943	....	....	....	....
Scarlet fever	....	....	2	5	....	....	....	....
Typhoid fever	....	4	2	1	....	....	....	....
Tuberculosis	15	16	13	49	....	....	....	....
Cerebrospinal meningitis	....	1	6	12(5)	....	2	8	10
Chancroid	21	57	42(21)	17(8)	....	....	....	....
Syphilis	28	50	27(23)	31(7)	....	....	....	....
Gonorrhea	408(1)	484	317(287)	108(13)	....	....	....	....
Total	483	760	3,892	2,858	4	37	43	84

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

Disease admissions ran high at Camp Travis, as might be expected from the low rate of urbanity of the regions from which the men were drawn and the crowding of the cantonment. Measles totaled 3,813 cases in November and December, after which the epidemic abated.

The division surgeon reports:

> With the first increment sent to this camp by the various local boards were a number of men who were physically unfit to perform the duties of a soldier. These men were naturally more susceptible to disease than were the physically fit. This error was later corrected by sending a board of medical officers from this camp to various parts of the States of Texas and Oklahoma for the purpose of giving instructions to the local boards in the proper method of examination of recruits before sending them to this camp for military service. The beneficial results of this instruction, it is thought, will have its effect in bringing a better class of recruits in the future so far as physical condition is concerned. Many cases of pneumonia followed measles and mumps, particularly the former disease. The cases of pneumonia, as well as influenza, were not localized in the camp but occurred generally throughout the entire camp. The pneumonia epidemic was general throughout the State. Civilian physicians informed me that they had never had so many cases of pneumonia in their practice in previous years.

A special board of medical officers visited Camp Travis on December 27 to consider the epidemic of measles and pneumonia. They decried the failure to differentiate between measles and German measles. A previous attack of one disease does not give immunity to the other. The measles was so widespread that practically all new comers contracted it and the diseases began to die out by the middle of December. As quarantine had become irksome, the board recommended the withdrawal of many of the quarantine restrictions.

The most serious condition the board found was the prevalence of pneumonia. As at other camps there is some uncertainty as to differentiation between lobar pneumonia and broncho-pneumonia and as to the precise number of cases secondary to measles, but it appears that while the majority of cases of pneumonia, and nearly all those of broncho-pneumonia, are related to measles, a considerable amount of pneumonia, this being predominantly lobar, occurs independently of measles. A certain number of cases of pneumonia occurred before the outbreak of measles.

The fatality from pneumonia of all forms during the month was 20 per cent. It is much higher in the pneumonia following measles than in straight lobar pneumonia. While pneumonia is much more likely to be a sequal of true measles, it has been observed in several instances after German measles, but exact figures upon this point are not available as the two forms of measles are not separated.

Infections with the pneumococcus are not limited to the occurrence of pneumonia. There have been many cases of pneumococcal conjunctivitis, five cases of pneumococcal meningitis disassociated from pneumonia, several cases of pleurisy due to this organism without pneumonia and a good deal of the prevailing sore throats and tonsillitis are attributed to the same germ. Pneumococcus infection is, therefore, widely distributed in the camp.

While overcrowding did, according to the recommended standards, not exist in the barracks at the time the board met, the opportunities of close contact were so numerous in the camp that it was suggested that some simple instruction be given to the men as to the risks of such contact and how to avoid them.

As at other camps, measles was a prime factor in the causation of pneumonia, but the continuance and even temporary increase of the pneumonia indicated that this is not the only factor. Other factors to be considered are the dust, not as great here as in some camps, but still considerable when the wind blows, the changing climatic conditions and exposure to cold with thin clothing, although the men were supplied with woolens, overcoats and blankets, and perhaps in some instances, lowered resistance from such causes as hookworm and chronic malaria.

The cerebrospinal meningitis was particularly fatal—24 cases with 10 deaths. There were also several cases of pneumococcus meningitis (without pneumonia). No two cases of meningococcus meningitis have come from a single company and in only one instance have two cases come from a single regiment.

The cases of typhoid were brought in from outside sources. The triple vaccine afforded general immunity.

The number of cases of gonococcus infection admitted to sick report was abnormally augumented at this camp by the induction of 7,500 negro troops.

17. CAMP WADSWORTH, S. C.

Camp Wadsworth is located at Spartansburg, S. C., a railroad junction point of about 20,000 inhabitants. The surrounding region is agricultural.

Swampy ground and poor drainage rendered the camp site unsanitary at first, but this defect was remedied by proper ditching. The disposal of waste presented a problem requiring eternal vigilance, because it was impossible to make a contract with one individual for the removal of manure and garbage. Instead it was necessary to divide the material among the neighboring farmers, most of whom were irregular in hauling away the waste. In poor weather Army transportation had to be provided. Nevertheless, this method of garbage disposal proved satisfactory for the most part, and resulted in a decided conservation of material.

Weather conditions during the last two months of the year were severe at Camp Wadsworth. It was the coldest December and, with one exception, the coldest month recorded for South Carolina. In December the temperature ranged from 70° on the 4th to 1° below zero on the 30th. Rainfall in both months was far below normal. There was recorded one heavy snowfall, 9.5 inches.

At the base hospital there were crowded quarters with practically no bathing or sewage facilities. The unusual cold rendered inadequate the stoves temporarily installed. For several periods of four to five days water connections were frozen and no water was available in wards or mess halls.

The population of Camp Wadsworth consisted of seasoned troops, mainly from the region of New York City. The strength of the camp at different dates is shown in Chart 26. Numbers increased regularly through September, attaining a maximum of 35,000 on October 12. On October 26 the strength stood at 29,000. After November 9 it remained at 30,000 for the remainder of the year.

The leading diseases and consequent deaths at Camp Wadsworth are given in Table 34.

Polygon of weekly strength of Camp Wadsworth measured by scale on the left.

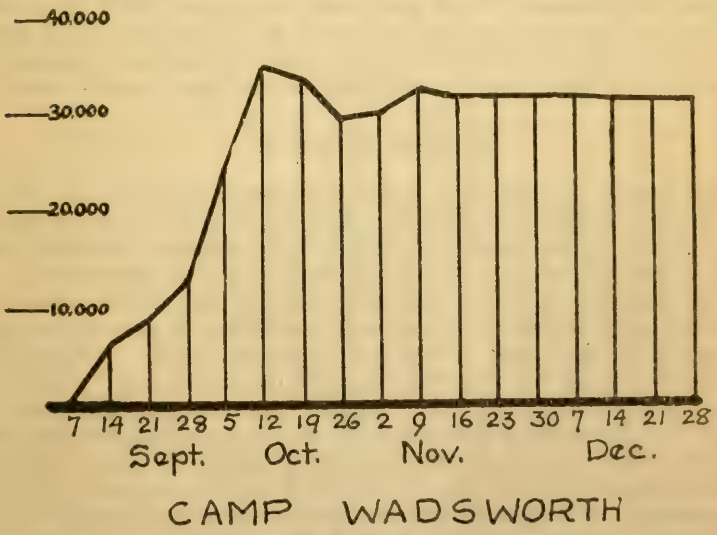


CHART No. 26.

TABLE NO. 34.—*Admissions and deaths, infectious diseases, Camp Wadsworth, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	3	5	11	20	....	1	....	1
Broncho-pneumonia	1	2	2	7	....	2	2	4
Measles (uncomplicated)	2	....	5	1	....	....	....	....
Measles and lobar pneumonia	....	....	....	....	....	....	....	....
Measles and broncho-pneumonia	....	....	....	....	....	....	....	....
Measles and other complications	....	....	....	....	....	....	....	....
German measles	1	2	17	68	....	....	....	....
Mumps	1	3	2	4	....	....	....	....
Scarlet fever	....	....	....	1	....	....	....	....
Typhoid fever	....	1	....	....	....	....	....	....
Tuberculosis	2	11	25	28	....	....	....	....
Cerebrospinal meningitis	....	1	....	1	....	....	....	....
Chancroid	7	25(1)	34	12	....	....	....	....
Syphilis	7	14(1)	31	15	....	....	....	....
Gonorrhea	110	187(5)	292(1)	93	....	....	....	....
Total	134	258	420	250	....	3	2	5

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The effect on the health of the Army of urban origin, with its consequent high degree of immunity from epidemic diseases, is evident from inspection of the figures. Measles, which caused admissions even into the thousands in camp populations drawn from rural regions, appeared only occasionally and totaled only eight cases in four months in an average population of nearly 30,000. German measles caused 88 cases and pneumonia 51 cases during the same period. Venereal diseases ran higher, causing 835 admissions. Nearly all of these cases were contracted prior to arrival at Camp Wadsworth and occurred in regiments that had been on guard duty in scattered detachments, generally so far separated as to prevent proper medical supervision. On November 26 all cases of venereal disease were ordered to the base hospital and kept under guard until cured.

18. CAMP SEVIER, S. C.

Camp Sevier lies about 4 miles northeast of Greenville, S. C., a city of some 20,000 inhabitants. Its entire area contains approximately 1,900 acres, many of which were densely wooded on the arrival of the troops and thickly covered by dense underbrush. The camp is situated on a low flat ridge which runs from northeast to southwest and whose northern and southern slopes afford ample drainage from any part of the troop-covered area. Several brooks and rivulets make the natural drainage most effective.

The temperature was much lower than usual. The year 1917 closed with the coldest December on record and with but one exception the coldest month in the history of South Carolina. The temperature ranged from 78° on the 7th of November to zero on the 30th of December. The precipitation also was exceedingly slight during this period. The moderate snowfall was confined to a period of a few days.

The water supply for the camp is collected in five reservoirs from the watershed on the east side of Paris Mountain. Analysis of the water showed it to be badly contaminated by *Bacilli coli.* The source of contamination is undetermined. The entire water supply is chlorinated by the city of Greenville. Lyster bags were put into operation at the camp and during the period of contamination the water for use of the entire camp was boiled.

The new Thirtieth (old Ninth) Division of the National Guard was assigned to Camp Sevier. This division consisted of seasoned troops from Tennessee, North Carolina, and South Carolina. To these were added, however, considerable increments of drafted men to complete the division. The strength was reported to be about 8,000 on September 7. This number increased consistently at the rate of about 4,000 fortnightly, until November 9, when the strength was 27,000. The camp remained at about this strength during the rest of the year (Chart 27).

Polygon of weekly strength of Camp Sevier measured by scale on the left.

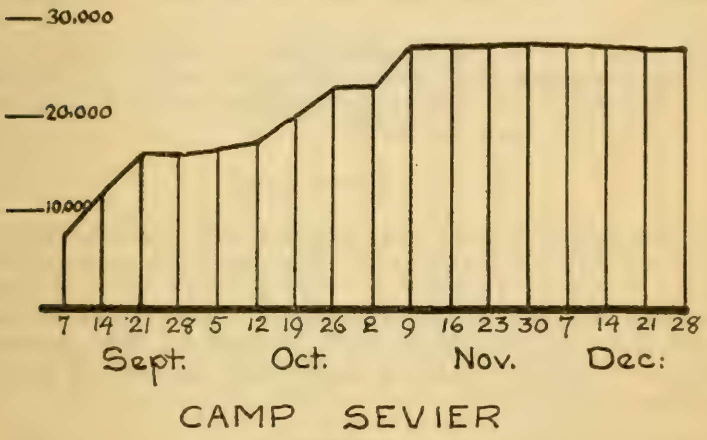


CHART NO. 27.

The leading diseases and causes of death at Camp Sevier are shown in Table No. 35.

TABLE NO. 35.—*Admissions and deaths, infectious diseases, Camp Sevier, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	8	24	38	29	7	10	3	20
Broncho-pneumonia	1	....	22	13	....	7	6	13
Measles (uncomplicated)	14	293	2,242	108	....	2	....	2
Measles and lobar pneumonia	....	9	11	3	4	5	....	9
Measles and broncho-pneumonia	....	15	218	21	5	71	6	82
Measles and other complications	....	14	53	18	1	....	....	1
German measles	....	....	12	9	....	....	....	....
Mumps	14	20	151	306	....	....	....	....
Scarlet fever	....	....	....	....	....	....	....	....
Typhoid fever	[illegible]	1	....	....	....	....	....	....
Tuberculosis	4	23	22	21	....	....	....	....
Cerebrospinal meningitis	....	3	17	6	1	5	2	8
Chancroid	50	20	11(4)	13	....	....	....	....
Syphilis	38	25	38(1)	54	....	....	....	....
Gonorrhea	264	121	75(4)	45(2)	....	....	....	....
Total	396	568	2,919	648	18	100	17	135

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[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The principal epidemic was that of measles, which reached its maximum development in November. Pneumonia, although much less prevalent, reached its maximum frequency during this month. Measles with broncho-pneumonia was the cause of the greatest number of deaths. Broncho-pneumonia claimed 13 and lobar pneumonia 20 deaths. Cerebrospinal meningitis was responsible for 8 deaths.

Venereal diseases were very prevalent and showed the highest frequency in September, soon after the camp opened.

A large number of ear infections followed measles—18 cases of acute mastoiditis were operated upon; 241 salvarsans were given.

The epidemic of measles and pneumonia is accounted for by the arrival of an increment of 9,000 drafted men at a time when there was a sudden drop in the temperature and adequate housing was not available. These men were described as poorly nourished and badly clothed.

The physical condition of all enlisted men of this command showed notable improvement after their arrival in camp. A hookworm survey of the troops was made and an attempt initiated to eradicate hookworm infection from the camp.

19. CAMP HANCOCK, GA.

Camp Hancock is located near Augusta, Ga. As elsewhere, the latter part of 1917 was rather cold, December being recorded as the coldest for 40 years. However, no very great extremes of temperature were reached, the maximum being 70° on the 7th of November and the minimum 11° on the 30th of December. The amount of precipitation was very small. A measureable amount of snow fell in December.

Polygon of weekly strength of Camp Hancock measured by scale on the left.

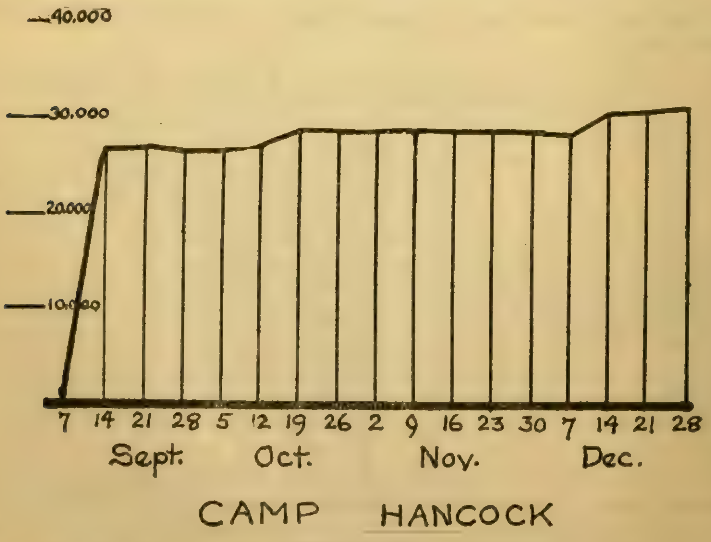


CHART No. 28.

The new Twenty-eighth (old Seventh) Division was assigned to Camp Hancock. This division consisted of seasoned troops coming from the State of Pennsylvania.

The camp early in September reached a strength of 27,000. In October the number was increased to 29,000 and in December to 32,000 (Chart 28).

The leading diseases and causes of death are listed in Table No. 36.

TABLE NO. 36.—*Admissions and deaths, infectious diseases, Camp Hancock, 1917.*

	Admissions.				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia		1	4	8				
Broncho-pneumonia			2	1				
Measles (uncomplicated)			2	8				
Measles and lobar pneumonia								
Measles and broncho-pneumonia								
Measles and other complications								
German measles			4	30				
Mumps		16	17	6				
Scarlet fever	2							
Typhoid fever		2	1	1			1	1
Tuberculosis	1	27	20	19				
Cerebrospinal meningitis		1	1	3	1	1	1	3
Chancroid	2	13	50	24				
Syphilis	8	25	14	25				
Gonorrhea	17	54	139	85				
Total	30	139	254	210	1	1	2	4

The record of disease is unusually small in this camp. No epidemic of any kind occurred. Four deaths only were reported, three of these being due to meningitis and one to typhoid.

The most prevalent by far are the venereal diseases. All others are very infrequent with the exception of tuberculosis.

20. CAMP WHEELER, GA.

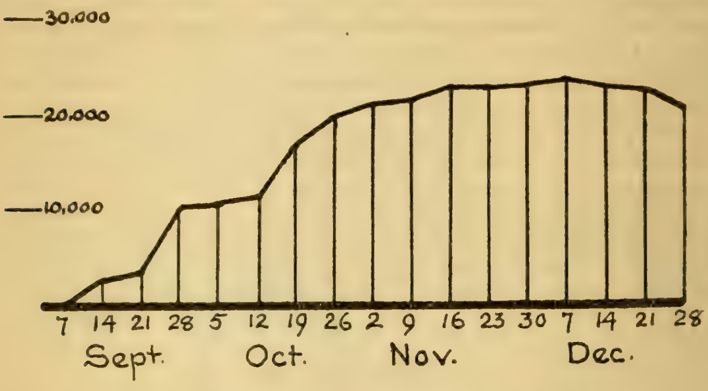
Camp Wheeler is located 5 miles southeast of Macon, Ga., a city of 40,000 inhabitants on the Ocmulgee River. The terrain of the camp consists of broad rolling hills of sandy loam top soil underlaid by clay which hardens readily. One creek flows through the middle of the camp, with two ponds in its course, and another runs south of it. Swamps abounded in and around the camp and these had to be drained. A civil settlement occupied the center of the camp. Altogether the site was not promising.

The water supply is that of Macon. It comes from the Ocmulgee River which is contaminated. The water is filtered and treated with hyperchlorate of lime. The sewage is now disposed of through the trunk sewer of Macon.

The temperature at Camp Wheeler was cool during November; December was the coldest known in Georgia for 40 years. Both months were dry and consequently there was much dust in camp. However, on the 11th to 13th of December sleet and snow fell and did not disappear for 10 days. This cold slush, though it laid the dust, brought another kind of discomfort.

To Camp Wheeler came the National Guard from Alabama, Florida, Georgia, and part of Virginia, a sparsely settled territory. Troops began to arrive in September and by the end of the month there were 10,000, by the end of October 20,000 and by the end of November, 23,000 (Chart 29).

Polygon of weekly strength of Camp Wheeler measured by scale on the left.



CAMP WHEELER

CHART NO. 29.

The leading diseases at Camp Wheeler during 1917 are given in Table No. 37.

TABLE NO. 37.—*Admissions and deaths, infectious diseases, Camp Wheeler, 1917.*

	Admissions.				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	1	47	324	239	9	61	20	90
Broncho-pneumonia		15	42	12	5	13	1	19
Measles (uncomplicated)	36	492	2,312	89				
Measles and lobar pneumonia		12	44	6	4	25	1	30
Measles and broncho-pneumonia		10	42	2	4	24	2	30
Measles and other complications		8	23	1		1		1
German measles		3	14	2				
Mumps	6	17	301	1,923				
Scarlet fever			2					
Typhoid fever								
Tuberculosis	2	23	21	15				
Cerebro spinal meningitis	1	1	8	10		4	7	11
Chancroid	25	57	28	17				
Syphilis	15	72	43	32				
Gonorrhea	114	217	151	84				
Total	200	974	3,355	2,432	22	128	31	181

The outstanding epidemiological fact in the early history of Camp Wheeler is the outbreak of measles, followed by pneumonia, with many deaths. On the occasion of a personal visit the Surgeon General reported (November 26, 1917):

> There had been a sharp epidemic of measles, some 3,000 cases and, as always occurs with measles, a certain number of cases of pneumonia. At the time of my visit there were some 300 cases of pneumonia in the hospital. While the hospital was crowded,

> the right of way was given the pneumonia cases and they were being well cared for. In the past month there have been about 60 deaths from pneumonia.
>
> I think the reason for the measles affecting so severely this particular camp is the fact that men came from the surrounding Southern States which are sparsely settled and therefore the inhabitants do not, as a rule have measles in childhood. Whatever the original cause of the epidemic and the present conditions, all these evils are accentuated by the crowded condition of the camp. The tendency to pneumonia has no doubt been increased by the fact that the men have generally been exposed to the cold weather of the past month with no other protection than their summer clothing. Clothing is now rapidly coming to the camp and about two-thirds of the men are supplied with woolen garments.

It was recommended that all men in the camp should have 50 feet of floor space each; that no fresh men should be brought into the camp until the epidemic had subsided; that an observation camp should be established and that all men were to be kept under observation until the main camp was free from infection.

The division surgeon offers additional data (Dec. 1, 1917):

> The epidemic of pneumonia in the Thirty-first Division had its true beginning on October 21, six days after the first selective-draft men arrived in camp. Previously there had been a few sporadic cases, never more than 9 at one time. On October 14 there were 3 cases, on October 21, 13; the number gradually increasing until, on November 1, there were 29; on November 10, 68; on November 20, 137; and on November 30, 326 cases.

The etiology of the disease, and the factors favoring its progress are given as follows: physically defective men, 60 to 70 per cent affected by hookworm; inadequate clothing; exposure at drills and even at mess; dust from camp roads, company streets and tent floors; herding in stoveless tents by day and sleeping often two on a small cot in a vain effort to keep warm; an epidemic of measles, brought in chiefly by draft men; an epidemic of bronchitis and other respiratory diseases, with coughing, sneezing, and expectorating in tents, streets and mess halls; and too early return to duty after measles. Of 50 pneumonia cases 12 were returned to the base hospital after having been discharged as cured of measles—3 after 1 day, 1 in 3 days, 2 in 5 days, 4 in 7 days, 1 in two weeks, and 1 in 3 weeks. Of 294 cases returned from the base hospital to the One hundred and twenty-fourth Infantry as cured of measles during the month of November, 30.8 per cent were sent to the hospital with bronchitis or pneumonia.

The rise and decline of measles and pneumonia and the relation of the second to the first are brought out in the following table, which is offered with the warning that it cannot be compared closely with the monthly record in which the admissions are classified somewhat differently.

Admissions.

Date.	Measles.	Lobar pneumonia.	Date.	Measles.	Lobar pneumonia.
Oct. 20, 1917	16	4	Dec. 1, 1917	55	182
Oct. 27, 1917	190	25	Dec 8, 1917	38	81
Nov. 3, 1917	348	24	Dec. 15, 1917	13	56
Nov. 10, 1917	814	28	Dec. 22, 1917	10	51
Nov. 17, 1917	918	52	Dec. 29, 1917	10	46
Nov. 24, 1917	359	128	Jan. 8, 1918	4	35

About 116 cases of pneumonia were preceded by measles, or about 15 per cent of all pneumonias, with a mortality of about 51 per cent. This incidence of lobar pneumonia, secondary to measles, is unique to this camp: for elsewhere the type of pneumonia that is preceded by measles is predominatingly bronchial. It is significant that the regiments largely involved were made up principally of draft men from Florida, new to the service and harboring the hookworm.

Mumps was epidemic from late November until the middle of January. The cases represent about 18 per cent of the command, a fact that would seem to indicate that the epidemic involved nearly all of the susceptible material. About 12 per cent of the cases of mumps developed orchitis. Venereal diseases were abundant; and it is noted that the new cases were chiefly from the newly drafted men.

21. CAMP SHERIDAN, ALA.

Camp Sheridan is located near the city of Montgomery, Ala, Three creeks running from south to north and one from east to west. eventually joining the Alabama River, afforded the natural basis of a drainage system. It was necessary to widen and deepen all of these creeks and to connect them with artificial drainage ditches. These drainage canals, both natural and artificial, became filled and clogged after every rain and necessitated a repetition of the original procedure of cleaning these channels. The soil is alluvial in nature and pulverized very quickly under traffic, resulting in a great deal of dust in dry weather.

The climate was extraordinarily pleasant barring a considerable drop in the temperature. The temperature varied from 75° on November 7 to 15° on December 9. There was slightly less precipitation than usual and practically no snowfall.

The water supply is excellent, and is piped from the city of Montgomery. It is soft and comes from artesian wells. A few instances of colon pollution were reported at first but are attributable to the dirt entering the mains during the process of laying the pipe. Some difficulty is experienced in obtaining sufficient pressure.

The garbage was at first disposed of by using a modified Guthrie incinerator, but this proved an expensive and inexpedient process because of the high price and difficulty in securing an adequate supply of fuel. The system now in force is the collection of liquid garbage by means of pump wagons. The liquid garbage is dumped two miles below the camp into a nearby stream emptying eventually into the Alabama River. The solid garbage is sold to a hog-feeding company.

The new Thirty-seventh (old Sixteenth) Division was assigned to Camp Sheridan. This division consisted almost wholly of seasoned troops from the State of Ohio. There were a few from West Virginia and Alabama also. The later increments of drafted men were principally from the Southern States.

Camp Sheridan reached its maximum strength of 24,000 early in October. This number was fairly constant throughout th period. It was decreased by about 1,000 late in December (Chart 30)

The leading diseases and causes of death for Camp Sheridan ar shown in Table No. 38.

Polygon of weekly strength of Camp Sheridan measured by scale on the left.

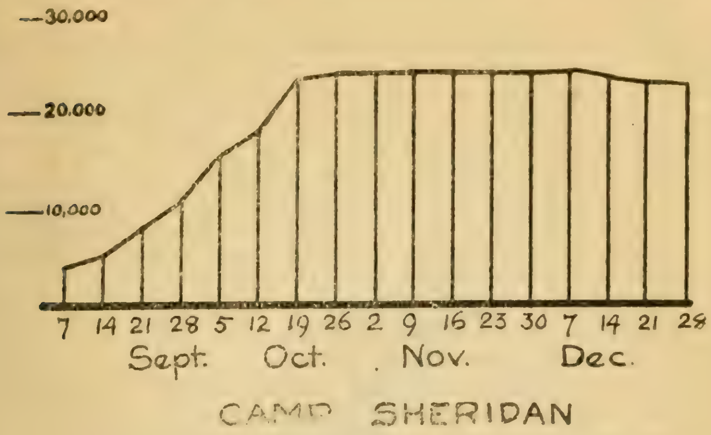


CHART NO. 30.

TABLE NO. 38.—*Admissions and deaths, infectious diseases, Camp Sheridan, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	4	5	15	11	....	....	1	1
Broncho-pneumonia	2	....	4	7	....	....	....	....
Measles (uncomplicated)	1	35	75	59	....	....	....	....
Measles and lobar pneumonia	....	....	....	....	....	....	....	....
Measles and broncho-pneumonia	....	1	1	....	....	1	....	1
Measles and other complications	....	....	....	2	....	....	....	....
German measles	....	5	108	156	....	....	....	....
Mumps	....	12	22	27	....	....	....	....
Scarlet fever	....	....	6	....	....	....	....	....
Typhoid fever	1	4	3	1	....	....	....	....
Tuberculosis	5	13	22	13	....	....	....	....
Cerebrospinal meningitis	....	2	4	1	....	2	....	2
Chancroid	2	36	25(1)	9	....	....	....	....
Syphilis	6	38	20(3)	29	....	....	....	....
Gonorrhea	10	96(1)	92	31	....	....	....	....
Total	31	248	401	346	....	3	1	4

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The disease record of this camp is unusually small; no serious epidemics of any kind occurred. Four deaths only were reported, two from meningitis and one each from lobar pneumonia and measles complicated by broncho-pneumonia.

Venereal diseases are by far the most frequent. The relatively high percentage of venereal diseases is explained in part by the fact that more than three regiments of this division before coming into camp were distributed on guard duty in small detachments through the State of Ohio near the larger cities and towns. An effort has been made with some success to educate the troops as to the significance of these diseases.

22. CAMP McCLELLAN, ALA.

Camp McClellan is situated about midway between Anniston and Jacksonville, Ala., and has the advantage of natural surface drainage, practically every organization being on a small creek. The soil of the camp is a mixture of clay and some gravel, which becomes very muddy in wet weather and very dusty in dry weather.

The temperature of the last three months of the year was below the average, varying from 74° above zero on the 8th of November to 8° above zero on the 30th of December. In both November and December the amount of precipitation was below normal. There was practically no snowfall in either of these months. There were 18 clear days in November and 15 in December.

Camp McClellan is amply supplied with excellent water from a spring, the source of which is Blue Mountains. The capacity of the spring is 33,000,000 gallons in 24 hours.

There was no system of sewage at first and 90 per cent of the latrines took seepage water and required pumping. Latrine pits on side hills, unused by troops, would frequently fill to within a foot or two of the top, necessitating pumping. Five excavating tanks have hauled on an average 12,500 gallons of polluted seepage water per day. Improvised crematories were constructed and the five in operation at the end of the year are capable of disposing of from four to five thousand gallons of sewage each, per day. Also a system of sewage was installed at the base hospital.

The new Twenty-ninth (old Eighth) Division of the National Guard was assigned to Camp McClellan. This division was composed of seasoned troops from the States of New Jersey, Virginia, Maryland, Delaware, and the District of Columbia. The percentage of urbanity is high in these States.

During the last three months of the year 1917 the strength of the camp remained fairly constant. From the first increment of 14,000 in September the number increased to about 25,000 in October and 27,000 in November and December (Chart 31).

Polygon of weekly strength of Camp McClellan measured by scale on the left.

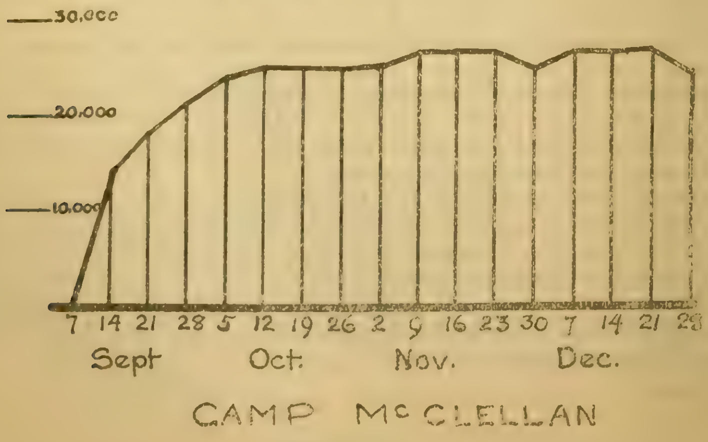


CHART No. 31.

The leading diseases and consequent deaths at Camp McClellan are shown in Table No. 39.

TABLE NO. 39.—*Admissions and deaths, infectious diseases, Camp McClellan, 1917.*

	Admissions.				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia		10	11	24	1			1
Broncho-pneumonia	2	2	2	9				
Measles (uncomplicated)	4	39	57	115				
Measles and lobar pneumonia			1					
Measles and broncho-pneumonia			1	2		1		1
Measles and other complications				3				
German measles	3	1	2	1				
Mumps	8	21	22	29				
Scarlet fever	2		3	10				
Typhoid fever	7	1	2			1		1
Tuberculosis	7	18	39	24				
Cerebrospinal meningitis		3	3	2			1	1
Chancroid	12	29	22	15				
Syphilis	6	23	40	23				
Gonorrhea	62	190	85	61				
Total	113	337	290	318	1	2	1	4

It is noticeable that in this camp, containing seasoned troops, no serious epidemics occurred. Venereal cases ran rather high, 568 cases being treated during this period. Two hundred and fifteen uncomplicated cases of measles with no deaths were reported. In 125 instances pulmonary tuberculosis was assigned as the reason for disability-discharge from the division. One death occurred among the 45 cases of lobar pneumonia. Three other deaths occurred, one each resulting from cerebrospinal meningitis, measles with broncho-pneumonia, and typhoid fever, respectively.

Ten cases of typhoid fever occurred during this period and all cases were confined to the Fifth New Jersey Infantry, who apparently brought the disease with them. Examination of their service records showed that in practically every case the typhoid inoculation had not been completed. Sixteen cases of malaria were also reported as having been brought into the camp from outside sources.

Eight cases of meningitis were treated during October, November, and December. Seventy-three carriers were detected during this same period. Of the 413 examined in October 1.6 per cent were carriers; of the 539 examined in November 5.2 per cent were carriers. The percentage of carriers was still further increased in December, when 7.3 per cent of the 502 men examined were reported as carriers. Great care was exercised in segregating and isolating all carriers detected.

23. CAMP SHELBY, MISS.

Camp Shelby is located 11 miles southeast of Hattiesburg, Miss., on a rather high, rolling plateau, covered with pine forests, once cut over. The soil is of clay, covered with a light coating of fine sand, which dries very quickly on the surface, but which is only slightly impervious. The natural drainage is good, as the general surface of the area is marked by many ravines.

The temperature during this period was unusually low for this region, varying from 75° on November 7 to 1° below zero on December 30. There was very much less rainfall than usual. There was considerable snowfall in December, but for the most part confined to a very few days.

The permanent supply of water is from three wells over 300 feet deep, passing through several impervious layers of clay and filtering layers of sand and gravel. The disposal of waste proved a real problem. The impervious character of the soil precluded any chance of absorption. This necessitated the use of odorless excavators for pumping out the waste. The kitchen garbage was disposed of to a contractor. Some difficulty was experienced in incinerating the manure and this was later disposed of to contractors for fertilizer.

Work began on the camp July 22, 1917, and the new Thirty-eighth (old Seventeenth) Division began its organization August 25 with the arrival of the commanding general and the division staff. This division was composed of seasoned troops from the States of Indiana and Kentucky. To these were added a considerable number of drafted men from civil life to complete the organization.

This camp reached its maximum strength very slowly by small increments. It started with about 2,000 men in September and only reached its maximum strength of 30,000 in November. In December this strength was decreased to about 27,000 (Chart 32).

The principal diseases and consequent deaths for Camp Shelby are listed in Table No. 40.

TABLE No. 40.—*Admissions and deaths, infectious diseases. Camp Shelby, 1917.*

	Admissions.				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	4	33	42	46		2	7	9
Broncho-pneumonia		5	11	24		1	2	3
Measles (uncomplicated)	5	116	1,139	257				
Measles and lobar pneumonia	1	2	11	2	1	7	2	10
Measles and broncho-pneumonia		1	25	13		14	7	21
Measles and other complications		2	34	20		1	1	2
German measles	1	21	2	12				
Mumps	1	66	331	383				
Scarlet fever	1							
Typhoid fever		1						
Tuberculosis	2	23	30	14				
Cerebrospinal meningitis	1	4	13	7		2	3	5
Chancroid	7	39	25	13				
Syphilis	9	61	54	19				
Gonorrhea	21	144	80	59				
Total	53	518	1,797	869	1	27	22	50

As usual, measles and mumps far outnumber the other diseases in frequency, but neither reached the proportions here that prevailed in many camps. Measles was reported from the very first, being brought in by the troops from Kentucky. It did not reach any disturbing proportion until the last of October, when the larger increments of drafted men furnished material for the spread of the disease. The crests of the waves of incidence occurred on the 8th and 22d of November. After the 3d of December the number of admissions for measles began to fall off rapidly and by the last of this month the epidemic was over.

Polygon of weekly strength of Camp Shelby measured by scale on the left.

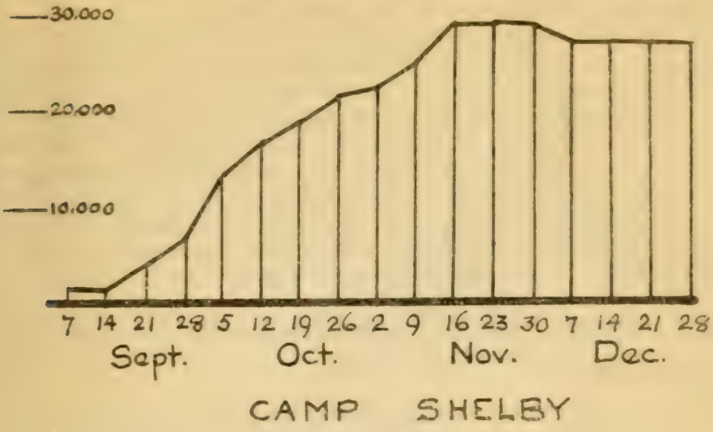


CHART NO. 32.

The most frequent cause of death was measles complicated with lobar and broncho pneumonia. Thirty-one deaths were so caused. Although some difficulty was experienced in housing all the patients during the height of the epidemic the camp surgeons feel confident that none of the deaths or complications could well be attributed to exposure.

Primary broncho-pneumonia resulted in three deaths and lobar pneumonia in nine deaths during this period. Two deaths occurred from meningitis in November and three in December. The first meningitis cases to appear were confined to one regiment, but all the later admissions were single isolated cases in different organizations.

Venereal diseases were not as frequent in this camp as in some nearby. As usual the times of greatest frequency correspond to the time of arrival of considerable increments.

Hookworm infection was studied in the Kentucky troops. In one regiment coming from the eastern part of Kentucky the proportion of positive cases was found to be 17.4 per cent. In some of the companies the proportion ranged as high as 30 per cent. Another regiment drawn from central and western Kentucky showed only 7 per cent of positive cases.

The officers of the Public Health Service, on duty in Hattiesburg, rendered valuable assistance in the control of preventable diseases, in antimalaria work, in the supervision of restaurants, milk and food supply, and in reporting the occurrence of communicable diseases among the civilian population.

24. CAMP BEAUREGARD, LA.

Camp Beauregard is located about 6 miles north of Alexandria, La., a city of 15,000 inhabitants, situated on the Red River. The camp is built on fairly rolling ground, making the drainage a comparatively simple problem. There were, however, a number of swamps in the extra cantonment area which had to be drained or oiled, under the direction of the United States Health Service. The terrain is commonly known as "cut-over pine-tree land," but some of the pine was left standing.

The water supply is derived from five artesian wells, furnishing about 850,000 gallons per day of good quality.

To Camp Beauregard came first the National Guard of the States of Arkansas, Louisiana, and Mississippi, States characterized by few large cities (compare the list given under Camp Pike, page 83), and an urbanity near the lowest of any camp. Subsequently increments were received of drafted men. The strength of the camp at different dates is shown in Chart 33. It gradually increased from about 1,000 to 5,000 during September to 7,000 during October, rapidly to 23,000 during November, in which month 9,000 drafted men were received from Camp Pike, and remained at about this strength during the rest of the year. There were no colored troops.

Polygon of weekly strength of Camp Beauregard measured by scale on the left.

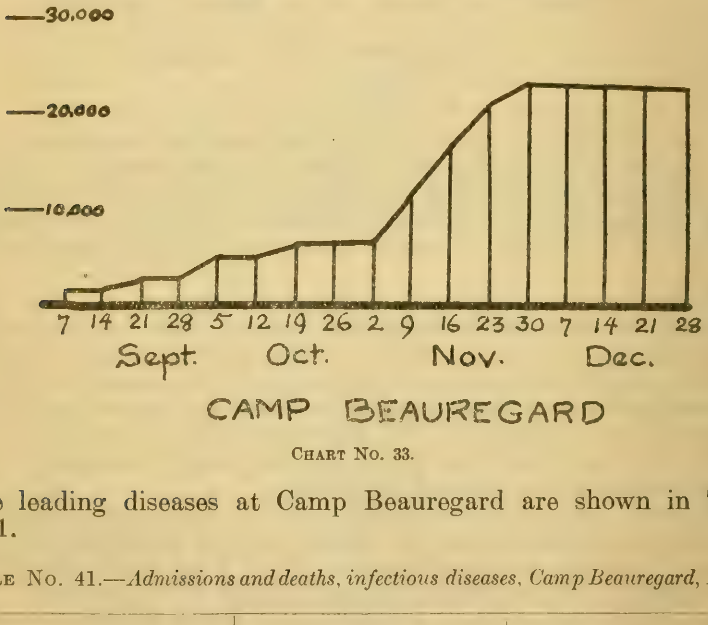


CHART No. 33.

The leading diseases at Camp Beauregard are shown in Table No. 41.

TABLE No. 41.—*Admissions and deaths, infectious diseases, Camp Beauregard, 1917.*

	Admissions.				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	2	4	40	59	1	3	10	1
Broncho-pneumonia	....	4	75	101	....	15	15	[illegible]
Measles (uncomplicated)	11	149	1,546	120	....	....	....	....
Measles and lobar pneumonia	....	....	17	2	....	3	2	[illegible]
Measles and broncho-pneumonia	2	6	113	18	....	44	5	4
Measles and other complications	....	....	20	10	....	2	....	[illegible]
German measles	....	....	5	....	....	....	....	....
Mumps	2	32	466	1,299	....	....	....	....
Scarlet fever	....	....	....	....	....	....	....	....
Typhoid fever	....	....	2	....	....	....	....	....
Tuberculosis	1	20	17	16	....	....	....	....
Cerebrospinal meningitis	....	....	15	35	....	6	10	1
Chancroid	7	11	19	17	....	....	....	....
Syphilis	....	6	59	35	....	....	....	....
Gonorrhea	12	40	87	70	....	....	....	....
Total	37	272	2,481	1,782	1	73	42	11

The division surgeon calls attention to the fact that there was a marked increase in the sick rate after the arrival of the drafted men. A large percentage of these men came from small towns and rural districts, and had not yet learned the principles of "taking care of themselves," especially in the open. Many of these men had never had the usual diseases of childhood, and it would seem that their environments and previous habits of life had rendered them especially susceptible to communicable diseases.

This table shows that measles reached epidemic proportions in November. The peak of incidence was reached November 19 to 22. The epidemic declined greatly in December and ceased completely with the close of the year. The epidemic of measles was accompanied by pneumonia, especially broncho-pneumonia, and many deaths occurred in November. The first admission for pneumonia occurred one week after the maximum incidence of measles was reached.

The base hospital not being fully constructed or prepared to care for such a large number of cases, field hospitals were operated for this purpose and, later, regimental isolation camps were established for the milder cases.

The precautionary measures taken by division orders to prevent the spread of this disease were as follows: prompt recognition of all early cases by inspection twice daily of all enlisted men and isolation of cases in hospital or isolation camps; furling of tents from sunrise to sunset, weather permitting; opening of tent ventilators and tying back of tent doors at night; fires were extinguished at taps; additional tentage to reduce the number of men per tent from eight-plus to six-plus, and the arranging of cots so men would sleep head to foot; men from different organizations were not allowed to congregate in exchanges, Y. M. C. A. buildings, or other places.

Cerebrospinal meningitis.—The number of cases of this disease during 1917 at Camp Beauregard was 50. There were 16 deaths, giving a mortality of 32 per cent. The distribution of cases to January 9 was as follows:[1]

Nov. 9–16	3
Nov. 17–19	3
Nov. 25–30	5
Dec. 2–4	3
Dec. 7–13	3
Dec. 15–20	5
Dec. 21–28	7
Dec. 28–Jan. 3	28
Jan. 4–9	17

It will be noted that there was a general increase in increments throughout December, with an explosion during the week ending January 3. During the week following there was a decrease of 11 cases, evidently resulting from restrictive measures enforced on January 3. The occurrence of cases was widespread, and there was only one instance where men from the same tent contracted the disease. Thirty-seven of the total number of cases came from the One hundred and fifty-sixth Infantry. This regiment received nearly 2,500 drafted men from Camp Pike. These men were however, kept in quarantine for about a month before being fed into the regiment, and a good number of cases occurred while these men were in quarantine. This would seem to indicate that the drafted men were more liable to meningitis than the National Guard troops.

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[1] The distribution of cases by months in this table does not agree exactly with Table 41. This is due to the fact that some cases in the last table were reported later than in Table 41.

The number of fulminating cases in which death occurred within twelve hours after onset of symptoms was two. All cases were treated with serum. There has been nothing new developed in the diagnosis or treatment of this disease. Best results have followed the use of serum obtained from the New York State Board of Health. The diagnosis in all cases was confirmed by spinal fluid findings. Measures to prevent the spread of this disease have been as follows: isolation of all cases; isolation and examination for carriers of all contacts; early in the epidemic all organizations in which cases occurred were quarantined as a whole; this was later modified to the systematic examination for carriers in ever widening circles, starting from the case.

On account of lack of laboratory facilities at the base hospital and its distance from the camp, the examination for carriers was done in the laboratory cars of the Louisiana State Board of Health, which were generously put at the service of the division surgeon by its president.

These cars were placed on a siding centrally located to the whole division. The work was done by the director of the laboratory cars and officers from the laboratory of the base hospital.

Isolation camps for carriers, surrounded by barbed wire and under guard, were established at three points. Carriers and contacts were treated there until three negative cultures at intervals of three to six days were obtained. The number of cases examined was 7,754; the number of carriers found was 250; the number of carriers developing the disease was one.

As the table shows, mumps became epidemic in November and increased greatly in December. There were about 1,800 cases by the end of the year. Two field hospitals were established as mumps hospitals, and the overflow taken care of in mumps camps, which were established in the rear of organizations. These mumps camps were used more especially for the uncompleted type of cases. Most of the cases were of a mild type, the usual complications being orchitis; two cases were noted with mild miningeal symptoms, with negative spinal-fluid findings. It is impossible to account for these symptoms. The majority of the cases showed no complications and performed light duty. There were 2,063 cases up to January 13, 1918, and it was expected that in a short time all the susceptible material would be used up.

The conditions of disease from measles, pneumonia, and meningitis, led to a personal visit to and report concerning conditions at this camp by the Surgeon General, December 1, who concluded that the epidemic was largely due to crowding and urged that each man should receive 50 feet of floor space in the tents instead of the 28 feet which they had previously occupied. He noted that the men had largely come to camp in their summer clothing and on account of delay in supplying them with winter underclothing they had suffered some discomfort and been rendered more liable to pneumonia.

25. CAMP DONIPHAN, OKLA.

Camp Doniphan is located on the reservation of Fort Sill, a rolling, grassy country, with small streams at varying intervals, at an altitude of 900 to 1,000 feet above sea level.

The temperature at Camp Doniphan was changeable in October. A hard freeze occurred on the 19th, and on the 30th the temperature fell to 15° F. Again, in November the thermometer stood at 9° on the 30th and close to zero on the 6th of December. Meantime it was exceedingly dry. A peculiar feature of the climate of Camp Doniphan is the frequency of windstorms. These storms invariably carry thick clouds of dust of such intensity that it is often difficult to see an approaching vehicle a short distance away. They last from 12 to 24 hours and carry dust, according to aerial observers, to a height of 3,000 feet.

Water for Camp Doniphan comes from Lake Lawtonka, a reservoir 7 miles distant. Some colon bacilli were found at first, and hypochlorite of lime was used in all drinking water; later the colon bacilli disappeared, and the water was treated with chlorine at the lake. The sewage system of the plant was not installed until late in the year.

To Camp Doniphan came first the National Guard of the States of Missouri and Kansas (see Chart 34). Only about 3,000 came in at the beginning, but on the 25th of September other troops arrived and continued until October 15, 1917, when the last unit came in. On October 20, 3,000 drafted men arrived, making a total in the division at that time of over 24,000. The troops came with cotton clothing, woolen clothing not having been issued until considerable severe weather had been experienced; and, to add to the difficulty of the situation, the weather for November and December was unusually severe.

The troops were quartered in the large pyramidal tents, 9 to each tent, and a number of organizations had 12 to a tent. Sibley stoves were used for heating.

Polygon of weekly strength of Camp Doniphan measured by scale on the left.

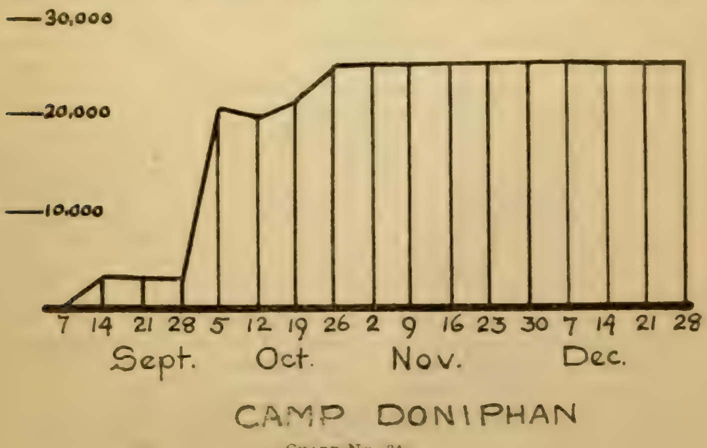


CHART No. 34.

The frequency of the principal contagious diseases and deaths is shown in Table 42.

TABLE NO. 42.—*Admissions and deaths, infectious diseases, Camp Doniphan, 1917.*

	Admissions.				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	1	14	76	79	1	7	5	13
Broncho-pneumonia				5				
Measles (uncomplicated)	4	32	220	758				
Measles and lobar pneumonia			13	8		8	1	[illegible]
Measles and broncho-pneumonia			1	8			2	2
Measles and other complications			7	14		2	1	3
German measles		2	2	131				
Mumps		5	10	37				
Scarlet fever		4	11	13				
Typhoid fever	1	4	2		1	1		2
Tuberculosis	2	24	31	22				
Cerebrospinal meningitis			5	23		3	5	8
Chancroid	6	31	20	16				
Syphilis	15	44	45	40				
Gonorrhea	20	329	138	68				
Total	49	489	581	1,222	2	21	14	37

The most striking feature of Table 42 is the large number of cases of measles with relatively few cases of pneumonia as complications. The camp surgeon reports as follows:

On October 12, 1917, Company H, One hundred and thirty-ninth Infantry, arrived in camp. This company had been detained at Abilene, Kans., for some weeks on account of measles, and after having undergone a period of quarantine of 18 days at that place, had been permitted to come to this camp. However, upon arrival at this camp a case of measles was discovered. It was isolated immediately and the company again put in quarantine in this camp. Cases occurred from time to time in this company until almost every man had suffered an attack. This infection was peculiar in that it was mild, attended with few complications, and in that the attack lasted only a few days. A number of men suffered two and several three attacks of this infection. Maj. Sidney Straus, Medical Reserve Corps, chief of the medical section, base hospital, makes the following comments on this infection: "We have treated in the contagious wards of the base hospital, Camp Doniphan, Fort Sill, Okla., some 20 odd cases from Company H, Third Kansas Regiment, now the One hundred and thirty-ninth Infantry, the exact diagnosis of which is doubtful. None of the patients have been at all sick. There has been no lachrymation or photophobia, and but few sore throats. The temperatures have been normal or very slightly above normal. A few show a typical exanthem on hard palate, consisting of pea-sized irregular pinkish macules, discrete in every instance. A few cases show typical Koplik spots. Many show a small punctate eruption just at the junction of the hard and soft palate, of the nature of petechiæ. There were occasionally a few petechiæ on the mucous membrane of the cheeks. The eruption consisted of small discrete dark red macules, scattered mainly over chest and abdomen, disappearing very rapidly in two or three days. The contagiousness of the disease and character of the exanthem lead one to believe that we are dealing with a very mild epidemic of measles." This company was kept in quarantine until December 4, 1917, when, 18 days having elapsed since the last case, they were released and allowed to proceed to their regimental area. In the meantime cases had developed in several other regiments in the division. Careful instructions were issued to regimental and other independent unit surgeons on the following points: Sending of case to hospital at once; isolation of contacts; examination of contacts twice daily; careful examination of all cases at sick call for suspects; establishing of a camp for suspect cases in each regiment or other unit and placing of guard around same.

However, in spite of these measures there was a gradual and continuous spread of the infection. On December 3 a memorandum was issued to the entire command. The high-water mark was reached on December 24, there being on that date 486 cases. From this date there was a gradual falling off, so that on December 31 there were only 356 cases.

The proper handling of the epidemic was interfered with by delay in finishing the base hospital, which was not completely ready for occupancy by the end of the year. The post hospital that had to be used in the emergency epidemic proved wholly inadequate for this purpose.

Lobar pneumonia (primary) assumed a threatening aspect in November with 76 admissions; it continued through the winter, causing many deaths.

Meningitis.—On November 7, 1917, a case of meningitis developed in Caisson Company No. 2, One hundred and tenth Ammunition Train. The company had just arrived and was mobilized at this place, being made up of National Guardsmen from Kansas and Missouri. The man was sent to the base hospital at once and all tentmates cultured. On November 8 another case developed in an adjoining company. Similar methods were pursued in this instance, and the carriers treated with a spray of dicjoloramine-T. From these cases there was a gradual spread to other organizations, so that on December 31 there were 18 cases.

Isolation camp.—On December 11 the Surgeon General visited the camp and made an inspection of the base hospital and the camp. As a result of the Surgeon General's recommendations two important sanitary measures were put into effect a short time afterwards—the reduction of the number of men to 5 per cent and the establishing of the isolation camp. This camp was established about one-half mile northwest of division headquarters, put in command of a medical officer, and sufficient tentage furnished from the outset to accommodate all contacts, with only five men to the tent. All contacts were sent immediately for the following: measles, cerebrospinal meningitis, scarlet fever, diphtheria, and, at the outset, a few for mumps. The principle followed was to quarantine in units of five. The camp had been in operation only 15 days on December 31, the last day of this report, but the effectiveness of this plan had already become manifest, even at that date.

26. CAMP MAC ARTHUR, TEX.

This camp at Waco, Tex., received the Thirty-second (old Eleventh) Division, consisting mostly of National Guard troops from Michigan and Wisconsin.

The weather at Camp MacArthur was unusually cold during the months of November and December and reached 30° on the 17th of the latter month. The season was exceptionally dry.

To Camp MacArthur came troops as shown in Figure 35. The strength of the camp reached a maximum of 26,000 in October, and thereafter diminished slightly.

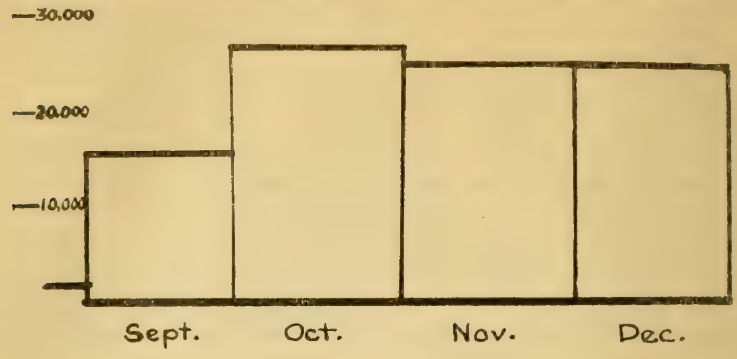
The leading causes of admission to sick report and of death are given in Table 43.

TABLE NO. 43.—*Admissions and deaths, infectious diseases, Camp MacArthur, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	2	8	24	43		2	1	3
Broncho-pneumonia		1	1	2				
Measles (uncomplicated)	3	38	378	457				
Measles and lobar pneumonia			2	3				
Measles and broncho-pneumonia				1			1	1
Measles and other complications			1					
German measles			1					
Mumps	3	24	50	63				
Scarlet fever		2	14	31				
Typhoid fever		5	14					
Tuberculosis	2	23	47	119				
Cerebrospinal meningitis								
Chancroid	3	16	19	21				
Syphilis	6	27(1)	26	22				
Gonorrhea	69(3)	195(2)	109	85				
Total	91	342	686	850		2	2	4

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

Polygon of weekly strength of Camp MacArthur measured by scale on the left.



CAMP MACARTHUR

CHART No. 35.

There were many cases of measles, but these resulted in exceedingly few complications and only one death. There were also numerous admissions on account of tuberculosis and lobar pneumonia, but the fatality was very small.

27. CAMP LOGAN, TEX.

This camp is located at Houston, Tex., at a point less than a mile west of the corporation limits of that city, a railroad and cotton center of 100,000 inhabitants. The camp site has the shape of a blunt-ended triangle, the apex lying in an easterly direction and toward the city of Houston, at an elevation of 50 feet above sea level, and contains 2,000 acres. The terrain, although close to the Buffalo River, is practically on a dead level, and it has been necessary to dig ditches, 6 to 7 feet deep for mains with sufficient laterals, in the vicinity of the occupied areas to provide rapid drainage for bath and surface water. Conditions have been much improved since the camp has been established, until at the present time there is no difficulty in securing the prompt drainage of all surface water within 24 hours after rainfall.

The water supply is derived from an artesian well which has a depth of 557 feet and a capacity of 1,000 gallons per minute. The camp reservoir has a capacity of 1,600,000 gallons and is roofed, so as to prevent contamination and the growth of algæ. The weather during the last three months of the year was exceedingly dry, and even near the Gulf coast exceptionally cool, though the minimum temperature for December was only 20° F.

To Camp Logan was sent the old Twelfth Division of the National Guard from the State of Illinois. These were mostly seasoned men, largely of urban origin. Figure 36 shows the weekly changes in strength and indicates that transfers occurred from and to the camp, which reached its maximum strength of 33,000 in November.

The number of admissions to sick report and deaths from principal diseases are given in Table 44.

Measles and German measles, while common, never assumed epidemic proportions. Infected squads were isolated and their bedding insolated daily for 12 days.

Polygon of weekly strength of Camp Logan measured by scale on the left.

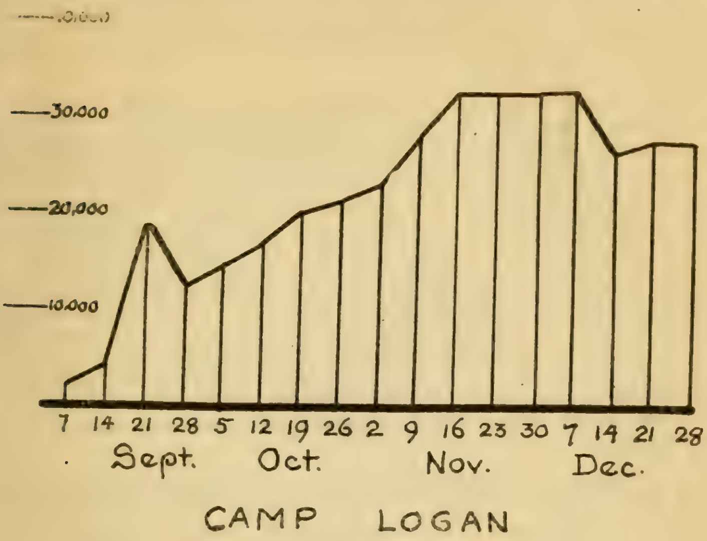


CHART No. 36.

TABLE No. 44.—*Admissions and deaths, infectious diseases, Camp Logan, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	4	17	33	31	....	2	5	7
Broncho-pneumonia	....	2	2	5	1	....	....	1
Measles (uncomplicated)	....	12	21	195	....	....	....	....
Measles and lobar pneumonia	....	....	....	1	....	....	....	....
Measles and broncho-pneumonia	....	....	1	1	....	1	....	1
Measles and other complications	....	....	2	....	....	....	....	....
German measles	....	1	5	85	....	....	....	....
Mumps	2	28	32	21	....	....	....	....
Scarlet fever	....	1	1	....	....	....	....	....
Typhoid fever	....	1	1	1	....	....	....	....
Tuberculosis	3	15	49	70	....	....	....	....
Cerebrospinal meningitis	1	....	1	4	....	....	2	2
Chancroid	5(1)	23(17)	50(18)	50(14)	....	....	....	....
Syphilis	11(1)	38(5)	40(4)	64(8)	....	....	....	....
Gonorrhea	26	155(55)	315(53)	186(51)	....	....	....	....
Total	54	370	628	787	1	3	7	11

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

Venereal disease.—A large majority of these cases were imported into the camp and consisted of old chronic cases that were overlooked or waived by the examining officers. This and the fact that regimental surgeons were required to card all cases of venereal diseases for record will account for the high venereal rate for this disease. It was the fact that many of the organizations were without the facilities for prophylaxis at mobilization camps.

Typhoid fever.—All cases are believed to have been contracted before joining the division, as all of these men had had their first inoculation.

28. CAMP BOWIE, TEX.

Camp Bowie is located in the suburbs of Fort Worth, Tex., on a high dry rolling and generally fine terrain, but a little too much intermingled with a suburban residential district.

The weather during the last months of the year was unprecedentedly dry, which was the cause of much dust in camp. November was of average temperature until toward the end severe and frequent "northers" set in. December was cold, the temperature being 12° on the 10th of the month.

The first contingent of troops belonging to the Texas and Oklahoma National Guard arrived in camp August 25. At this time temporary barracks were partly constructed and latrines established, but no kitchen incinerators had been made. The base hospital had not been started, and the sick were kept in tents. By September 28, 17,000 troops had arrived and this camp gradually increased, by adding drafted men from Camp Travis (of inferior physique), up to 28,000 by November 23. These were mostly National Guard troops from Texas and Oklahoma, States without large cities, except San Antonio and Dallas (each about 20,000), Houston (100,000), El Paso (about 50,000), Galveston (35,000), and Oklahoma City (10,000). The population of the area is prevailingly rural (Chart 37).

The frequency of the leading infectious diseases at Camp Bowie was as follows:

Table No. 45.—*Admissions and deaths, infectious diseases, Camp Bowie, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	4	35	279	196	1	33	20	54
Broncho-pneumonia		2	59	126		12	12	24
Measles (uncomplicated)	13	275	2,839	123				
Measles and lobar pneumonia		10	98	12		48	2	50
Measles and broncho-pneumonia		1	140	23		75	7	82
Measles and other complications		7	86	20				
German measles		1	21	7				
Mumps	14	111	342	1,035				
Scarlet fever			1	1				
Typhoid fever	8	3	1	1				
Tuberculosis	5	42	16	18				
Cerebrospinal meningitis		2	12	15	1	2	3	6
Chancroid	14	25	25	20				
Syphilis	11	40	41	19				
Gonorrhea	68	124	152(1)	115				
Total	137	678	4,113	1,731	2	170	44	216

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

Polygon of weekly strength of Camp Bowie measured by scale on the left.

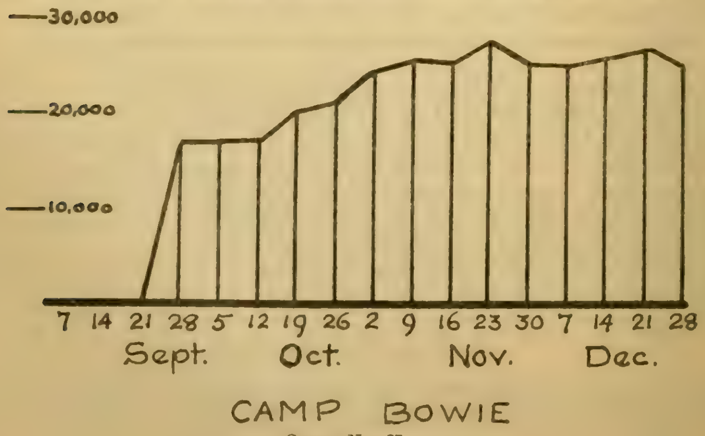


Chart No. 37.

The most striking feature of this table is the large number of cases of measles accompanied or followed by much lobar pneumonia and some broncho-pneumonia. There were six deaths from cerebrospinal neningitis. The base hospital reports concerning this epidemic as ollows:

> The first case of measles occurred the latter part of August was promptly isolated nd the necessary precautions taken by examination of contacts for early signs. An ccasional case of measles developed through September and during October. An ndeavor was made to control the spread of this disease, but owing to the fact that new ontingents of troops were arriving daily, new recruits coming in at all times, and the act that a detention camp had not been established, the cases still continued to levelop in different parts of the division. Many of the surgeons were inexperienced n Army work and did not appreciate the necessity of prompt isolation.
>
> Many of the cases of measles were very mild and some of them were never seen by he regimental surgeons, being discovered in many cases by accident and sent to solation after the spread of contagion had been effected. There were ample instrucions issued to all surgeons for inspection of all troops twice daily, in order to detect he very earliest signs. In many cases Koplic spots did not appear or were not disovered. A great many of the cases were so mild that they were undoubtedly cases of otheln and were practically well before it was realized that they had been infected, ome of them being considered by the regimental surgeons as ordinary colds.
>
> About October 20 an epidemic of measles broke out in the camp, and by the end f the first week in November every ward in the hospital had been filled. Then the varehouses, laundry, chapel, and guardhouse were used to house patients, and tents rom the field hospitals of the division were called into use. The maximum number f patients in the hospital on any one day occurred on November 22, when the morning eport showed a total of 1,887 patients in the hospital. The incoming movement of atients at this time was very rapid, some days there being admissions of more than 300 patients per day. Telegraphic request for hospital beds and clothing was made rom time to time, and these requests were filled as promptly as transportation faciliies permitted. Patients coming to hospitals were required to bring with them their ots and blankets, and quilts and comforters were furnished in large numbers by the Red Cross Association. By means of these measures the hospital was able to provide easonably adequate accommodations for all the patients. The sick were transferred to the wards which were equipped with proper hospital furniture and where members f the Army Nurse Corps and the more experienced of the enlisted personnel were n duty.
>
> By the end of the month of December the number of daily admissions to the hospital had decreased so that there remained only 550 patients in the hospital at the nd of the year.

The Surgeon General of the Army visited this camp and reported to Chief of Staff on December 3, 1917, in part, as follows:

> We have had in this camp during the past month 45 deaths from pneumonia, with 38 cases admitted. There have been about 2,900 cases of measles in the same length f time. The causes of this condition are much the same as in the other camps reorted upon. The great number of cases of measles is due to the fact that the men come rom the sparsely settled States of Texas and Oklahoma and have not had measles in hildhood; but the largest cause is due to the overcrowding of the camp. We have at resent nine men to a tent. I recommend that the division commander be directed o furnish sufficient accommodations, so that each man will be allowed 50 feet of floor pace. This would give not more than five men to a tent.
>
> Measles and other epidemic diseases are introduced into these camps by cases being rought by the incoming troops. To provide against this, an observation camp should e established where all newcomers should be kept under observation for at least 14 ays, and no new men should be placed in general camp until it is free from infection. recommend that the division commander be directed to establish such observation amp; that no fresh men be sent in until he is ready to receive them under the above nstructions.
>
> The base hospital is in an unfurnished condition: no water in the hospital, no plumbng or sewer connection. With the large number of patients in this institution, this ck of water, plumbing, and sewer connection causes serious inconveniences to the ick and increases greatly the burden of caring for them.

An epidemological board visited the camp on December 31 and reported as follows:

Venereal disease.—As in other camps the venereal rate is unduly high because men were enlisted with venereal disease. Of 450 cases counted, 239 contracted their disease prior to entry into the service.

Measles.—The morbidity from measles has been very large in this camp and the morbidity and mortality from pneumonia has doubtless been greatly increased thereby. * * * The division surgeon reports that there were a few cases of measles on August 30 and that a few cases developed in September. These cases were all mild. It is to be noted that no differentiation or separation of measles and German measles was made nor seriously attempted. We can not, therefore, know what proportion of each disease was represented by the figures. General experience of the fact that German measles is less common in civil life than the ordinary average, together with the experience at Camp Cody where separation of the disease showed 89 per cent of German measles, leads us to think that there was probably more susceptible material for that disease to act upon, but cross infections were undoubtedly so numerous that it is quite impossible to make sound estimations as to the prevalence of the two diseases. We may say, however, that exposure to each was probably general throughout camp and in each instance until it had used up practically all susceptible material, after which it subsided. That the epidemic is burned out until an influx of new men produces new material for the disease appears to be shown by the fact that only four new cases have appeared since December 21. That cross infection in hospital followed by incubation produces, and early symptoms in camp tend to contribute to, the more rapid using up of the more susceptible material, to the quick development of a large epidemic, we have no doubt.

The striking difference of incidence in the One hundred and forty-third Infantry (817 cases of measles) and the One hundred and thirty-second Field Artillery (87 cases of measles) led us to make some inquiries as to the places of recruitment of these regiments. This inquiry brought out the fact that 29 militia companies that had contributed to the One hundred and forty-third Infantry came from 25 towns, of which all but a few towns were very small, and that the men were mostly country men from sparsely settled regions. On the other hand, the Cavalry troops which had been transferred into the One hundred and thirty-second Field Artillery all came from cities and the companies were reported to be composed mostly of men from the cities, with the exception of the headquarters company from Taylor, Tex., said to be composed mostly of country men. Of course, most city dwellers have had measles in childhood.[1] That all city and country men have not had a similar childhood experience has been a misfortune to this camp and to the military service.

A study of 102 cases of pneumonia (63 lobar and 39 broncho-pneumonia) was made in December by Drs. Jobling and Dorcher, with the following results:

		Per cent.
Total type determinations	62	
Total type 1	22	36.
Total type 2	0	0.
Total type 2, atypical	9	15.
Total type 3	2	3.
Total type 4	29	47.
Total number hemolytic streptococcus	31	
Streptococcus from lungs at autopsy	18	
Streptococcus from pleural fluid	113	
Total autopsies	30	
Lobar pneumonia	3	
Broncho-pneumonia	27	

Many of the cases of pneumonia were accompanied by a streptococcic infection an rapidly developed a very virulent empyema, which was found in most of the case that died. Believing that in many cases the streptococci came from bad teeth, th dental surgeons started a survey and extracted all roots, starting the correction o diseased teeth.

The meningitis epidemic started with the first case in October. This case died October 22. There were no further cases until th week ending November 24, when five cases were reported. All con tacts of meningitis were isolated and examined for carriers, the carriers being isolated in the base hospital and treated until free from infection. Later, when the laboratory force could get the time, the entire company was swabbed and plated to detect carriers in each company in which a positive case of meningitis appeared. On November 28 a general quarantine was placed on the camp prohibiting all men from going to the city or assembling in any closed building. This was deemed necessary on account of the great amount of coughing and danger of droplet infection. This quarantine was maintained until December 19 when it was lifted from all organizations, except those in which epidemic meningitis had recently occurred.

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[1] This statement is in only apparent conflict with Table No. 45, owing to the method of chargin back to the camp of origin incipient cases transferred to another camp.

29. CAMP CODY, N. MEX.

Camp Cody is located 3 miles west of the city of Deming, N. Mex., in the valley of the Mimbres River at an altitude of 4,350 feet. The terrain is high, the drainage good, soil sandy, the water supply exceptionally pure, and the climatic conditions during the greater portion of the year ideal.

The months of November and December were cooler than the average, the lowest temperature being 20° on the 8th of December. There was no rainfall or snowfall.

The soldiers of the camp consisted of National Guard men from the States of Minnesota, Iowa, Nebraska, North Dakota, and South Dakota. These were seasoned soldiers from a territory that contains only a few great cities.

Beginning with the 1st of September the camp grew in strength steadily up to the 1st of November and thereafter remained fairly constant in strength (Chart 38).

Polygon of weekly strength of Camp Cody measured by scale on the left.

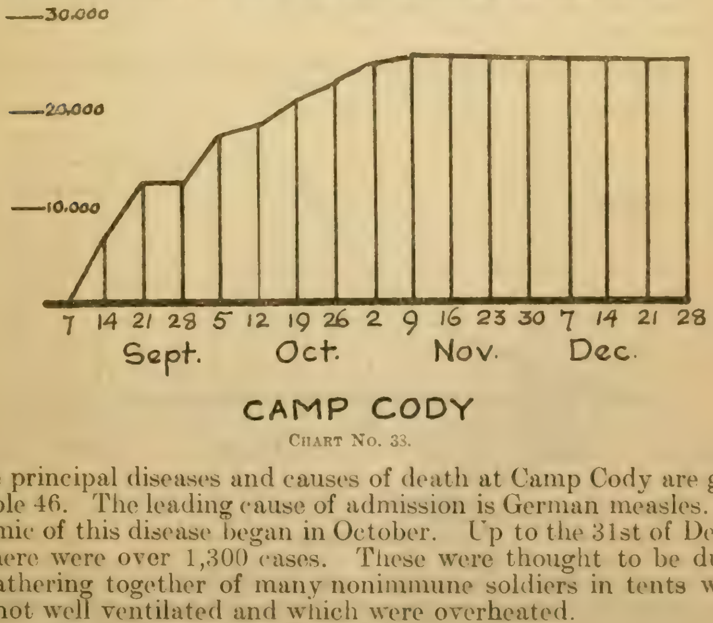

CHART NO. 33.

The principal diseases and causes of death at Camp Cody are given n Table 46. The leading cause of admission is German measles. An pidemic of this disease began in October. Up to the 31st of December there were over 1,300 cases. These were thought to be due to he gathering together of many nonimmune soldiers in tents which vere not well ventilated and which were overheated.

TABLE No. 46.—*Admissions and deaths, infectious diseases, Camp Cody, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	1	8	47	135	....	8	19	27
Bronchopneumonia	1	3	7	10	....	2	....	2
Measles (uncomplicated)	....	14	149	148	....	....	....	....
Measles and lobar pneumonia	....	1	10	12	1	7	5	13
Measles and bronchopneumonia	....	....	1	2	....	1	....	1
Measles and other complications	....	....	4	7	....	....	....	....
German measles	....	43	797	469	....	....	....	....
Mumps	2	6	15	20	....	....	....	....
Scarlet fever	....	7	5	7	....	....	....	....
Typhoid fever	....	....	....	....	....	....	....	....
Tuberculosis	4	36	28	15	....	....	....	....
Cerebrospinal meningitis	....	....	3	3	....	2	1	3
Chancroid	3	19	18	7	....	....	....	....
Syphilis	3	27	43(1)	30	....	....	....	....
Gonorrhea	36	250	116(2)	25	....	....	....	....
Total	50	414	1,246	890	1	20	25	46

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

There were a good many cases of measles, but no such epidemic as in the camps of the Gulf States. Lobar pneumonia became alarmingly common in December. It was prevailingly a primary disease of which 19 deaths occurred in December and 5 deaths from pneumonia following measles. This minor epidemic lasted through the remainder of the winter.

30. CAMP KEARNEY, CAL.

Camp Kearney is situated on a mesa near San Diego, a city of 50,000 inhabitants, in southern California. The soil is an impervious hardpan which makes poor surface drainage and renders excavation very difficult. The water is supplied from San Diego by a 12-inch main, is filtered and chlorinated by the city, and is safe. The sewerage is disposed of by the standard septic tank and treatment tank for effluent.

Polygon of weekly strength of Camp Kearney measured by scale on the left.

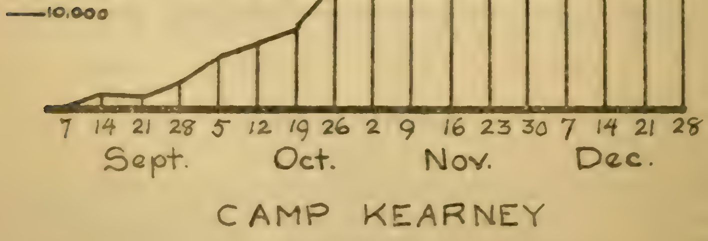

CHART No. 39.

The weather during November and December was mild and ver dry; the lowest temperature recorded was 44° on the 12th of Decem ber. In consequence of the drought the dust was very deep.

Camp Kearney received organizations of the National Guard from Arizona, New Mexico, Colorado, Utah, and California, a region which, except for California, contains few great cities (see Camp Lewis). Few troops came to the camp in September. During October the strength of the camp increased from 4,000 to 18,000 and by the middle of November it had reached 25,000 near which point it remained for the rest of the year (Chart 39).

The leading communicable diseases at Camp Kearney during 1917 are given in Table No. 47.

TABLE No. 47.—*Admissions and deaths, infectious diseases, Camp Kearney, 1917.*

	Admissions.[1]				Deaths.			Total deaths.
	Sept.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	
Lobar pneumonia	1	10	54	56	2	4	3	9
Broncho-pneumonia	1	4	6	21			1	1
Measles (uncomplicated)	1	28	278	637			1	1
Measles and lobar pneumonia		2	5	15	2	2	11	15
Measles and broncho-pneumonia			5	17		2	8	10
Measles and other complications		1	9	19			1	1
German measles	2	19	68	307				
Mumps	2	8	46	69				
Scarlet fever	1		2	28				
Typhoid fever								
Tuberculosis		62	295	496				
Cerebrospinal meningitis		2	12	8		2	1	3
Chancroid	2	19	37	9				
Syphilis	2	19	54	42				
Gonorrhea	14	221	622(1)	121				
Total	26	395	1,494	1,855	4	10	26	40

[1] Figures in parentheses indicate number of colored troops in venereal disease only.

The striking fact in this table is the large number of cases of tuberculosis admitted to sick report—far greater than is shown by any other camp. The only other camps that admitted as many as 100 in any month are Pike (at Little Rock, Ark.) and MacArthur (at Waco, Tex.). Even Camp Lewis, which drew from much the same territory as Camp Kearney, did not have as many as 50 cases in any one month. The large number of cases of tuberculosis at Camp Kearney may be due to a greater laxness on the part of the physicians who examined physically the National Guard, as compared with those who examined the drafted men.[1] Perhaps like many of their forebears who settled this territory, they had a tubercular diathesis.

Measles and German measles both reached high numbers, in November and December, and pneumonia followed in the wake of measles. The frequency of German measles is striking in Camp Lewis also. Again, as in Camp Lewis, venereal diseases ran very high, especially as drafted men came into the camp in November and December. It seems probable that the large incidence of venereal diseases among drafted men from the territory tributary to Kearney may be due to its large mining population. The number of cases that arose *de novo* in command was very small.

Meningitis.—During the last three months of the year, 22 cases were admitted, of which three died. The first cases of this disease appeared in a Colorado regiment a few days after arrival at camp. The entire regiment was quarantined and throat survey made of all the personnel. No secondary cases occurred. About a month later another outbreak occurred, five cases being admitted within 48 hours. They broke out in widely separated parts of the cantonment and in no one of them could infection be traced to previous cases. Mass quarantine of regiment or even companies was concluded to be necessary. Quarantine was made selective and included, first, all tent mates of the sick man: second, his close associates; third, occupants of neighboring tents. These contacts were removed to a quarantine camp, together with their tents and effects. No contacts developed the disease. Later, men in neighboring tents were not quarantined. The outstanding feature of meningitis outbreaks in this camp is that they invariably occurred after dust storms. They have not followed winter rains. All contacts and a great number of other individuals were examined and repeated post nasal smears were made. Even in those found to be carriers of the meningococcus the disease has not manifested itself. The cases were nearly always diagnosed at an early stage. This fact, together with prompt intraspinal treatment at the base hospital is accountable, it is thought, for the comparatively low death rate.

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[1] However, there were some drafted men at Camp Kearney of whom it is stated that they furnished a large number of noneffectives. It seemed that only a most superficial examination had been made of these men when drafted. It took some time to relieve the command of them.

III. Base Hospitals and Special Services.

At each cantonment an extensive base hospital was built, usually with a capacity for about 1,200 patients. In some camps there was a delay in completing the base hospital until the middle of winter, and this prevented the proper treatment of the sick. In other cases epidemics of unanticipated dimensions showed that the space provided was entirely inadequate. Thus at Camp Pike, with a normal capacity of 1,250, there were on January 14, 1918, 1,785 patients, and there have been as many as 1,850. In this case there was a severe epidemic of measles; and as fast as cases became convalescent they were treated in barracks.

A good picture of the surgical service at a base hospital is afforded by the report from Camp Pike.

From November 1, 1917, to December 1, 1917, operative surgery was carried on in a room of the receiving barracks with but five officers on duty in that service. There were two wards available for surgical patients. Weekly meetings of the surgical staff were held, with a view of putting in force a definite system as soon as the operating pavilion should be opened. This system devised and carried out during the remainder of the year was as follows: The main operating room cared for clean surgery only, and the two operating rooms in this pavilion were labeled "A" and "B." Wards 9, 10, 11, and 12, immediately adjacent, were set aside to take care of the patients on this service. The operating room of the ear, nose, and throat section was denominated "C," with wards 17, 18, and 19 to receive patients on this service. Operating room "D" was to take care of pus cases, with wards 23, 25, and 26; separate operating teams work in each service. The sterilization of dressings required for whole surgical service was finally done in the sterilization room of the operating pavilion. Each ward obtains its own dressings material from the supply officer, cuts and folds them as desired, places them in a clean, labeled pillow slip, and leaves them at the entrance of the operating pavilion at 1 p. m. daily.

The dressings are sterilized and returned to the wards. Each ward then does its own dressings without further assistance from the operating room service. This procedure has greatly simplified and made for efficiency in the dressing of surgical cases. Accident cases were immediately attended to by ward surgeons, and anti-tetanic serum used in all cases. X-ray pictures are made as soon as practicable. Cement floors are in all operating rooms. A satisfactory system for delivery of sterile water was devised by the chief of the surgical service, which meets all requirements. The surgical service has met with the refusal of soldiers with acute appendicitis to submit to operation. Recent orders on the subject of refusal of operation do not meet this condition. Should a patient die without operation his friends can criticize the service for lack of proper treatment. Should operation be performed without the patient's consent and without the proceedings of the board required by recent order, the service would also be open to criticism. It may very well happen that immediate operation is necessary to save life, and there will be no time to convene a board of officers as contemplated. The commanding officer has ordered, in a specific case, that operation should be performed without the patient's consent, it having been decided by consultation that this measure was necessary to preserve the patient's life. Confirmation of this position in similar cases is desired. There were upward of 500 surgical operations of varying nature performed by the surgical service up to January 1, 1918.

BASE HOSPITAL, CAMP PIKE, ARK.—EYE, EAR, NOSE, AND THROAT SERVICE.

The work of this service was at first almost entirely taken up with the examination of malingering. The latter part of October many cases of measles were admitted and ear complications were treated. Up to January 1, 1918, 30 operations for acute mastoiditis were performed, two of these cases being bilateral. The department has treated many cases of tonsilar and paratonsilar abscesses and many cases of laryngitis. It has been realized that probably the most valuable work opened to this department of the surgical service is the seeking out and removing of chronically infected tonsils and the performance of operation for chronic nasal conditions. The limited personnel and the pressure of other work prevented systematic entrance into this field. September 27, 1917, there were two medical officers on duty at this service; October 17, one medical officer; December 5, three medical officers. The equipment was finally all that could be desired, but its arrival was slow.

BASE HOSPITAL, CAMP PIKE, ARK.—MEDICAL SERVICE.

There were many men at work in the hospital when it first opened. Notwithstanding, it was possible to operate all the wards but three. From the opening of the hospital until the end of the year practically all the beds were occupied, and many times it was necessary to place rows of cots in the corridors. There were as many as 1,700 in the hospital at one time. Commissioned personnel in the medical service was insufficient at this time, and sometimes one officer had to see as many as 300 patients. The same was true of the nurses, who worked efficiently and without complaint under adverse conditions. At that time there was no hot water in the wards, and it was a difficult matter to bathe patients.

In the medical service there is a standing order that all serious or doubtful cases must have a consultation with the chief of service, and if he is not available then the next senior officer, and so on down the line, but the consultation must be held, and is an imperative rule in all such cases.

TABLE No. 48.—*Total admissions in September, October, November, and December, 1917, from selected infectious diseases, by camps, United States enlisted men (absolute numbers).*

Camp.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and broncho-pneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).	Typhoid fever.	German measles.	Syphilis.	Chancroid.	Gonorrhea.	Tuberculosis (pulmonary), chronic.	Mumps.	Scarlet fever.
Beauregard, La.	180	105	1,826	139	19	30	50	2	5	100	54	209	54	1,799	....
Bowie, Tex.	187	514	3,250	164	120	113	29	13	29	111	84	460	81	1,502	2
Cody, N. Mex.	21	191	311	3	23	11	6	....	1,309	104	47	429	83	43	19
Custer, Mich.	1	29	310	1	....	7	4	....	92	85	29	583	64	207	11
Devens, Mass.	16	24	201	....	1	....	3	1	71	87	8	270	124	19	2
Dix, N. J.	4	27	32	....	....	1	....	20	1	108	73	861	56	15	8
Dodge, Iowa	9	125	349	2	5	11	17	1	2	114	74	621	156	186	23
Doniphan, Okla.	5	170	1,014	9	21	21	28	7	135	144	73	555	79	52	28
Funston, Kans.	14	130	233	14	3	8	38	1	19	157	43	684	54	66	4
Gordon, Ga.	14	45	765	22	7	6	20	1	227	187	100	950	139	55	....
Greene, N. C.	13	97	622	3	5	4	7	....	5	119	114	533	29	348	15
Grant, Ill.	9	55	156	2	....	....	7	1	1	92	19	278	82	95	3
Hancock, Ga.	3	13	10	....	....	....	5	4	34	72	89	295	67	39	2
Jackson, S. C.	48	60	1,333	36	11	72	126	2	439	46	37	294	92	517	1
Kearney, Cal.	32	121	944	22	32	29	22	....	396	117	67	979	853	125	31
Lee, Va.	12	57	428	9	9	9	9	2	259	111	56	439	70	1,274	....
Lewis, Wash.	24	89	133	....	1	5	25	2	1,205	265	91	1,860	128	137	91
Logan, Tex.	9	85	228	2	1	2	6	3	91	171	178	841	137	83	2
MacArthur, Tex.	4	77	876	1	5	1	....	19	1	82	59	463	191	140	50
McClellan, Ala.	15	45	215	3	1	3	8	10	7	92	78	398	88	80	15
Meade, Md.	13	78	167	2	....	1	12	....	166	229	93	821	88	55	10
Mills, N. Y.	13	84	355	6	....	4	2	....	271	148	91	666	39	331	28
Pike, Ark.	64	373	4,069	120	90	75	32	4	1	113	71	779	158	472	292
Sevier, S. C.	36	99	2,657	254	23	85	26	4	21	156	98	511	70	491	....
Sheridan, Ala.	13	35	170	2	....	2	7	9	269	96	73	230	53	61	6
Shelby, Miss.	40	125	1,517	39	16	56	25	1	36	143	84	304	69	781	1
Sherman, Ohio	21	151	206	....	....	1	16	1	25	289	176	1,140	111	86	15
Taylor, Ky.	19	102	973	43	7	51	23	4	47	228	107	612	146	110	....
Travis, Tex.	48	372	3,848	52	67	177	24	7	19	166	166	1,618	93	1,329	7
Wadsworth, S. C.	12	39	8	....	....	....	2	1	88	68	79	688	66	10	1
Wheeler, Ga.	69	611	2,929	54	62	32	20	....	19	162	127	566	61	2,247	2
Upton, N. Y.	6	44	45	4	3	....	1	....	1	101	31	221	83	61	2
Total	974	4,172	30,180	1,008	532	817	600	120	5,291	4,263	2,569	20,158	3,664	12,816	671

TABLE NO. 49.—*Total admissions in September, October, November, and December, 1917, from selected infectious diseases, by camps, United States enlisted men (ratios per 1,000 mean strength).*

Camp.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and broncho-pneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebro-spinal meningitis (epidemic).	Typhoid fever.	German measles.	Syphilis.	Chancroid.	Gonorrhea.	Tuberculosis (pulmonary), chronic.	Mumps.	Scarlet fever.
Beauregard, La	45.51	26.55	461.69	35.15	4.80	7.59	12.64	0.51	1.26	25.28	13.65	52.84	13.65	451.87	
Bowie, Tex	25.59	70.33	444.72	22.44	16.42	15.46	3.97	1.78	3.97	15.19	11.49	62.94	11.08	205.53	0.27
Cody, N. Mex	2.83	25.71	41.86	.40	3.10	1.48	.81		176.18	14.00	6.33	57.74	11.17	5.79	2.56
Custer, Mich	.19	5.38	57.49	.19		1.30	.74		17.06	15.76	5.38	108.12	11.87	38.39	2.04
Devens, Mass	1.91	2.86	23.99		.12		.36	.12	8.47	10.38	.95	32.22	14.80	2.27	.24
Dix, N. J	.63	4.25	5.04			.16		3.15	.16	17.02	11.50	135.65	8.82	2.36	1.26
Dodge, Iowa	1.42	19.72	55.05	.32	.79	1.73	2.68	.16	.32	17.98	11.67	97.95	24.61	29.34	3.63
Doniphan, Okla	.70	23.90	142.58	1.27	2.95	2.95	3.94	.98	18.98	20.25	10.26	78.04	11.11	7.31	3.94
Funston, Kans	1.37	12.70	22.76	1.37	.29	.78	3.71	.10	1.86	15.34	4.20	66.82	5.27	6.45	.39
Gordon, Ga	1.85	5.94	101.06	2.91	.92	.79	2.64	.13	29.99	24.70	13.21	125.50	18.36	7.27	
Greene, N. C	1.54	11.49	73.66	.36	.59	.47	.83		.59	14.09	13.50	63.12	3.43	41.21	1.78
Grant, Ill	1.29	7.89	22.38	.29			1.00	.14	.14	13.20	2.73	39.87	11.76	13.63	.43
Hancock, Ga	.34	1.47	1.13				.56	.45	3.84	8.12	10.04	33.28	7.56	4.40	.23
Jackson, S. C	5.95	7.44	165.26	4.46	1.36	8.93	15.62	.25	54.43	5.70	4.59	36.45	11.41	64.10	.12
Kearney, Cal	5.91	22.35	174.33	4.06	5.91	5.36	4.06		73.13	21.61	12.37	180.79	157.53	23.08	5.72
Lee, Va	1.54	7.33	55.03	1.16	1.16	1.16	1.16	.26	33.30	14.27	7.20	56.45	9.00	163.82	
Lewis, Wash	2.29	8.48	12.67		.10	.48	2.38	.19	114.82	25.25	8.67	177.23	12.20	13.05	8.67
Logan, Tex	.99	9.34	25.05	.22	.11	.22	.66	.33	10.00	18.79	19.56	92.42	15.05	9.12	.22
MacArthur, Tex	.53	10.26	116.72	.13	.67	.13		2.53	.13	10.93	7.86	61.69	25.45	18.65	6.66
McClellan, Ala	1.55	4.65	22.20	.31	.10	.31	.83	1.03	.72	9.50	8.05	41.09	9.09	8.26	1.55
Meade, Md	1.78	10.66	22.83	.27		.14	1.64		22.69	31.30	12.71	112.22	12.03	7.52	1.37
Mills, N. Y	.89	5.77	24.40	.41		.27	.14		18.63	10.17	6.25	45.77	2.68	22.75	1.92
Pike, Ark	7.51	43.77	477.47	14.08	10.56	8.80	3.75	.47	.12	13.26	8.33	91.41	18.51	55.39	34.26
Sevier, S. C	5.03	13.84	371.40	35.50	3.22	11.88	3.63	.56	2.94	21.81	13.70	71.43	9.78	68.63	
Sheridan, Ala	2.20	5.93	28.79	.34		.34	1.19	1.52	45.56	16.26	12.36	38.96	8.98	10.33	1.02
Shelby, Miss	5.55	17.34	210.40	5.41	2.22	7.77	3.47	.14	4.99	19.83	11.65	42.16	9.57	108.32	.14
Sherman, Ohio	2.33	16.77	22.88			.11	1.78	.11	2.78	32.10	19.55	126.64	12.33	9.55	1.67
Taylor, Ky	2.85	15.32	146.16	6.46	1.05	7.66	3.45	.60	7.06	34.25	16.07	91.93	21.93	16.52	
Travis, Tex	5.65	43.76	452.65	6.12	7.88	20.82	2.82	.82	2.23	19.53	19.53	190.33	10.94	156.33	.82
Wadsworth, S. C	1.31	4.25	.87				.22	.11	9.58	7.40	8.60	74.90	7.18	1.02	.11
Wheeler, Ga	11.99	106.15	508.86	9.38	10.77	5.56	3.47		3.30	28.14	22.06	98.33	10.60	390.38	.35
Upton, N. Y	.81	5.91	6.05	.54	.40		.13		.13	13.57	4.17	29.70	11.15	8.20	.27
Total	3.90	16.72	120.92	4.04	2.13	3.27	2.40	.48	21.20	17.08	10.29	80.77	14.68	51.35	2.69

TABLE NO. 50. *Total deaths in September, October, November, and December, 1917, from selected infectious diseases, by camps, United States enlisted men (absolute numbers).*

Camp.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and bronchopneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).
Beauregard, La.	30	14	....	49	5	2	16
Bowie, Tex.	24	54	....	82	50	....	6
Cody, N. Mex.	2	27	....	1	13	....	3
Devens, Mass.	1	4	....	....	....	....	1
Dix, N. J.	....	3	....	....	....	....	....
Dodge, Iowa	2	7	....	2	....	....	1
Doniphan, Okla.	....	13	....	2	9	3	8
Funston, Kans.	6	9	1	8	2	1	11
Gordon, Ga.	2	6	....	13	3	....	4
Greene, N. C.	1	9	....	2	3	....	2
Grant, Ill.	....	4	....	....	....	....	....
Hancock, Ga.	....	....	....	....	....	....	3
Jackson, S. C.	18	6	2	20	3	1	37
Kearney, Cal.	1	9	1	10	15	1	3
Lee, Va.	1	9	....	4	5	....	....
Lewis, Wash.	....	8	....	....	1	....	5
Logan, Tex.	1	7	....	1	....	....	2
MacArthur, Tex.	....	3	....	1	....	....	....
McClellan, Ala.	....	1	....	1	....	....	1
Meade, Md.	1	6	....	1	....	....	6
Mills, N. Y.	2	5	....	2	....	....	1
Pike, Ark.	8	64	1	48	36	....	7
Sevier, S. C.	13	20	2	82	9	1	8
Sheridan, Ala.	....	1	....	1	....	....	2
Shelby, Miss.	3	10	....	21	10	2	5
Sherman, Ohio	....	13	....	....	....	....	4
Taylor, Ky.	2	6	....	13	....	....	2
Travis, Tex.	4	30	3	26	9	2	10
Wadsworth, S. C.	4	1	....	....	....	....	....
Wheeler, Ga.	19	90	....	30	30	1	12
Upton, N. Y.	....	4	....	....	....	....	1
Total	145	443	10	420	203	14	161

TABLE No. 51.—*Total deaths in September, October, November, and December, 1917, from selected infectious diseases, by camps, United States enlisted men (ratios per 1,000 mean strength).*

Camps.	Broncho-pneumonia.	Lobar-pneumonia.	Measles (uncomplicated).	Measles and broncho-pneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).
Beauregard, La.	7.59	3.54		12.39	1.26	0.51	4.05
Bowie, Tex.	3.28	7.39		11.22	6.84		.82
Cody, N. Mex.	.27	3.63		.13	1.75		.40
Devens, Mass.	.12	.48					.12
Dix, N. J.		.47					
Dodge, Iowa	.32	1.10		.32			.16
Doniphan, Okla.		1.83		.28	1.27	.42	1.12
Funston, Kans.	.59	.88	.10	.78	.20	.10	1.07
Gordon, Ga.	.26	.79		1.72	.40		.53
Greene, N. C.	.12	1.07		.24	.36		.24
Grant, Ill.		.57					
Hancock, Ga.							.34
Jackson, S. C.	2.23	.74	.25	2.48	.37	.12	4.59
Kearney, Cal.	.18	1.66	.18	1.85	2.77	.18	.55
Lee, Va.	.13	1.16		.51	.64		
Lewis, Wash.		.76			.10		.48
Logan, Tex.	.11	.77		.11			.22
MacArthur, Tex.		.40		.13			
McClellan, Ala.		.10		.10			.10
Meade, Md.	.14	.82		.14			.82
Mills, N. Y.	.14	.34		.14			.07
Pike, Ark.	.94	7.51	.12	5.63	4.22		.82
Sevier, S. C.	1.82	2.80	.28	11.46	1.26	.14	1.12
Sheridan, Ala.		.17		.17			.34
Shelby, Miss.	.42	1.39		2.91	1.39	.28	.69
Sherman, Ohio		1.44					.44
Taylor, Ky.	.30	.90		1.95			.30
Travis, Tex.	.47	3.53	.35	3.06	1.06	.24	1.18
Wadsworth, S. C.	.44	.11					
Wheeler, Ga.	3.30	15.64		5.21	5.21	.17	2.08
Upton, N. Y.		.54					.13
Total	.58	1.77	.01	1.68	.81	.06	.65

TABLE No. 52.—*Admissions, by camps and by months, 1917, for selected infectious diseases, United States enlisted men.*

Camps.	Broncho-pneumonia.				Lobar pneumonia.				Measles, uncomplicated.				Measles, complicated with broncho-pneumonia.				Measles, complicated with lobar pneumonia.				Measles, with complications other than pneumonia.				Cerebrospinal meningitis (epidemic).			
	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.
Beauregard, La	4	75	101	180	4	40	59	103	149	1,546	120	1,815	6	113	18	137	....	17	2	19	....	20	10	30	....	15	35	50
Bowie, Tex	2	59	126	187	35	279	196	510	275	2,839	123	3,237	1	140	23	164	10	98	12	120	7	86	20	113	2	12	15	29
Cody, N. Mex	3	7	10	20	8	47	135	190	14	149	148	311	....	1	2	3	1	10	12	23	....	4	7	11	....	3	3	6
Custer, Mich	....	....	1	1	9	7	12	28	25	109	176	310	....	....	1	1	....	....	....	....	....	3	4	7	3	....	1	4
Devens, Mass	1	8	7	16	8	7	9	24	2	33	165	200	....	....	....	....	....	....	1	1	....	....	....	....	....	....	3	3
Dix, N. J	1	1	2	4	4	4	15	23	3	4	24	31	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....
Dodge, Iowa	5	3	1	9	35	41	48	124	20	79	250	349	1	1	....	2	....	1	4	5	2	3	6	11	5	....	12	17
Doniphan, Okla	....	....	5	5	14	76	79	169	32	220	758	1,010	....	1	8	9	....	13	8	21	....	7	14	21	....	5	23	28
Funston, Kans	2	6	6	14	54	58	16	128	22	148	62	232	3	7	4	14	....	1	2	3	1	6	1	8	16	21	1	38
Gordon, Ga	1	6	7	14	13	14	18	45	60	195	495	750	....	1	21	22	....	1	6	7	1	2	3	6	2	2	16	20
Greene, N. C	2	2	9	13	15	21	55	91	56	122	443	621	....	1	2	3	1	....	4	5	....	3	1	4	5	....	2	7
Grant, Ill	4	2	3	9	18	15	21	54	4	13	139	156	....	....	2	2	....	....	....	....	....	....	....	....	1	5	1	7
Hancock, Ga	....	2	1	3	1	4	8	13	......	2	8	10	....	....	....	....	....	....	....	....	....	....	....	....	1	1	3	5
Jackson, S. C	2	27	19	48	8	20	29	57	208	863	245	1,316	....	29	7	36	3	8	....	11	4	46	22	72	....	20	106	126
Kearney, Cal	4	6	21	31	10	54	56	120	28	278	637	943	....	5	17	22	2	5	25	32	1	9	19	29	2	12	8	22
Lee, Va	....	....	12	12	1	17	37	55	1	206	218	425	....	1	8	9	....	3	6	9	....	5	4	9	3	2	4	9
Lewis, Wash	7	10	6	23	32	32	24	88	11	41	79	131	....	....	....	....	....	....	1	1	1	1	3	5	3	9	13	25
Logan, Tex	2	2	5	9	17	33	31	81	12	21	195	228	....	1	1	2	....	....	1	1	....	2	....	2	....	1	4	5
MacArthur, Tex	1	1	2	4	8	24	43	75	38	378	457	873	....	....	1	1	....	2	3	5	....	1	....	1	....	....	....	....
McClellan, Ala	2	2	9	13	10	11	24	45	39	57	115	211	....	1	2	3	....	1	....	1	....	....	3	3	3	3	2	8
Meade, Md	1	4	8	13	3	25	49	77	6	48	112	166	1	....	1	2	....	....	....	....	....	1	....	1	....	1	11	12
Mills, N. Y	1	8	2	11	20	39	18	77	82	192	28	302	1	4	1	6	....	....	....	....	....	2	....	2	....	1	....	1
Pike, Ark	4	18	41	63	57	144	165	366	935	1,826	1,266	4,027	20	50	50	120	16	31	43	90	9	36	29	74	4	15	13	32
Sevier, S. C	....	22	13	35	24	38	29	91	293	2,242	108	2,643	15	218	21	254	9	11	3	23	14	53	18	85	3	17	6	26
Sheridan, Ala	....	4	7	11	5	15	11	31	35	75	59	169	1	1	....	2	....	....	....	....	....	....	2	2	2	4	1	7
Shelby, Miss	5	11	24	40	33	42	46	121	116	1,139	257	1,512	1	25	13	39	2	11	2	15	2	34	20	56	4	13	7	24
Sherman, Ohio	2	7	11	20	27	54	67	148	9	46	149	204	....	....	....	....	....	....	....	....	1	....	....	1	1	6	9	16
Taylor, Ky	6	1	12	19	33	21	46	100	90	541	342	973	4	16	23	43	....	6	1	7	3	40	8	51	1	14	8	23
Travis, Tex	7	15	25	47	62	119	189	370	31	2,510	1,303	3,844	1	33	18	52	2	30	35	67	....	98	79	177	1	6	17	24
Wadsworth, S. C	2	2	7	11	5	11	20	36	......	5	1	6	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	2
Wheeler, Ga	15	42	12	69	47	324	239	610	492	2,312	89	2,893	10	42	2	54	12	44	6	62	8	23	1	32	1	8	10	19
Upton, N. Y	1	1	4	6	6	8	29	43	1	6	37	44	....	1	3	4	....	....	3	3	....	....	....	....	....	1	....	1
Total	87	354	519	960	626	1,644	1,823	4,093	3,089	18,245	8,608	29,942	65	692	249	1,006	58	293	180	531	54	485	275	814	64	197	335	596

Table No. 53.—*Deaths, by camps and by months, 1917, for selected infectious diseases, United States enlisted men.*

Camps.	Broncho-pneumonia.				Lobar pneumonia.				Measles, uncomplicated.			Measles and broncho-pneumonia.				Measles and lobar pneumonia.				Measles, with complications other than pneumonia.				Cerebrospinal meningitis.			
	October.	November.	December.	Total.	October.	November.	December.	Total.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.	October.	November.	December.	Total.
Beauregard, La		15	15	30	1	3	10	14					44	5	49		3	2	5		2		2		6	10	16
Bowie, Tex		12	12	24	1	33	20	54					75	7	82		48	2	50					1	2	3	6
Cody, N. Mex		2		2		8	19	27					1		1	1	7	5	13						2	1	3
Custer, Mich																											
Devens, Mass		1		1	2	1	1	4																		1	1
Dix, N. J							3	3																			
Dodge, Iowa	1		1	2		3	4	7				1	1		2											1	1
Doniphan, Okla					1	7	5	13						2	2		8	1	9		2	1	3		3	5	8
Funston, Kans		2	4	6	5	2	1	8	1		1		5	3	8		1	1	2			1	1	2	9		11
Gordon, Ga	1	1		2	2	3	1	6					1	12	13		1	2	3					1		3	4
Greene, N. C			1	1	1	4	3	8						2	2	1		2	3							2	2
Grant, Ill					1	2	1	4																			
Hancock, Ga																								1	1	1	3
Jackson, S. C	1	9	8	18		2	4	6		2	2		16	4	20		3		3		1		1		5	32	37
Kearney, Cal			1	1	2	4	3	9		1	1		2	8	10	2	2	11	15			1	1		2	1	3
Lee, Va			1	1		4	5	9					1	3	4			5	5								
Lewis, Wash					3	5		8										1	1						3	2	5
Logan, Tex	1			1		2	5	7					1		1											2	2
MacArthur, Tex						2	1	3						1	1												
McClellan, Ala					1			1					1		1											1	1
Mills, N. Y		1	1	2		4	1	5					2		2												
Pike, Ark		6	2	8	5	33	26	64		1	1	9	19	20	48	9	6	21	36					2	4	1	7
Sevier, S. C		7	6	13	7	10	3	20	2		2	5	71	6	82	4	5		9	1			1	1	5	2	8
Sheridan, Ala							1	1					1		1										2		2
Shelby, Miss		1	2	3		2	7	9					14	7	21	1	7	2	10		1	1	2		2	3	5
Sherman, Ohio					1	4	7	12																	3	1	4
Taylor, Ky			2	2		1	5	6				2	6	5	13										1	1	2
Travis, Tex		1	3	4	3	12	15	30	2	1	3	1	14	11	26		4	5	9		2		2		2	8	10
Wadsworth, S. C		2	2	4		1		1																			
Wheeler, Ga	5	13	1	19	9	61	20	90				4	24	2	30	4	25	1	30		1		1		4	7	11
Upton, N. Y					1		2	3																	1		1
Meade, Md			1	1		4	2	6				1			1										1	5	6
Total	9	73	63	145	46	217	175	438	5	5	10	23	299	98	420	22	120	61	203	1	9	4	14	8	58	93	159

TABLE No. 54.—*Total admissions, deaths, and case mortality in September, October, November, and December, 1917, from selected infectious diseases by camps, United States enlisted men.*

Camps.	Broncho-pneumonia.			Lobar pneumonia.			Measles (uncomplicated).			Measles and broncho-pneumonia.			Measles and lobar pneumonia.			Measles with complications other than pneumonia.			Cerebrospinal meningitis (epidemic).		
	Admissions.	Deaths.	Case mortality, per cent of cases.[1]	Admissions.	Deaths.	Case mortality, per cent of cases.	Admissions.	Deaths.	Case mortality, per cent of cases.	Admissions.	Deaths.	Case mortality, per cent of cases.[1]	Admissions.	Deaths.	Case mortality, per cent of cases.[1]	Admissions.	Deaths.	Case mortality, per cent of cases.[1]	Admissions.	Deaths.	Case mortality, per cent of cases.
Beauregard, La.	180	30	16.67	105	14	13.33	1,826			139	49	35.25	19	5	26.32	30	2	6.67	50	16	32.00
Bowie, Tex.	187	24	12.83	514	54	10.51	3,250			164	82	50.00	120	50	41.67	113			29	6	20.69
Cody, N. Mex.	21	2	9.52	191	27	14.14	311			3	1		23	13	56.52	11			6	3	50.00
Custer, Mich.	1			29			310			1						7			4		
Devens, Mass.	16	1	6.25	24	4	16.67	201						1						3	1	33.33
Dix, N. J.	4			27	3	11.11	32									1					
Dodge, Iowa	9	2	22.22	125	7	5.60	349			2	2		5			11			17	1	5.88
Doniphan, Okla.	5			170	13	7.65	1,014			9	2	22.22	21	9	42.86	21	3	14.29	28	8	28.57
Funston, Kans.	14	6	42.86	130	9	6.92	233	1	.43	14	8	57.14	3	2		8	1	12.50	38	11	28.95
Gordon, Ga.	14	2	14.29	45	6	13.33	765			22	13	59.09	7	3	42.86	6			20	4	20.00
Greene, N. C.	13	1	7.69	97	9	9.28	622			3	2		5	3	60.00	4			7	2	28.57
Grant, Ill.	9			55	4	7.27	156			2									7		
Hancock, Ga.	3			13			10												5	3	60.00
Jackson, S. C.	48	18	41.86	60	6	10.00	1,333	2	.15	36	20	55.56	11	3	27.27	72	1	1.39	126	37	29.37
Kearney, Cal.	32	1	3.13	121	9	7.44	944	1	.11	22	10	45.45	32	15	46.88	29	1	3.45	22	3	13.64
Lee, Va.	12	1	8.33	57	9	15.79	428			9	4	44.44	9	5	55.56	9			9		
Lewis, Wash.	24			89	8	8.99	133						1	1		5			25	5	20.00
Logan, Tex.	9	1	11.11	85	7	8.24	228			2	1		1			2			6	2	33.33
MacArthur, Tex.	4			77	3	3.90	876			1	1		5			1					
McClellan, Ala.	15			45	1	2.22	215			3	1		1			3			8	1	12.50
Meade, Md.	13	1	7.69	78	6	7.69	167			2	1					1			12	6	50.00
Mills, N. Y.	13	2	15.38	84	5	5.95	355			6	2	33.33				4			2	1	50.00
Pike, Ark.	64	8	12.50	373	64	17.16	4,069	1	.02	120	48	40.00	90	36	40.00	75			32	7	21.88
Sevier, S. C.	36	13	36.11	99	20	20.20	2,657	2	.07	254	82	32.28	23	9	39.13	85	1	1.18	26	8	30.77
Sheridan, Ala.	13			35	1	2.86	170			2	1					2			7	2	28.57
Shelby, Miss.	40	3	7.50	125	10	8.00	1,517			39	21	53.85	16	10	62.50	56	2	3.57	25	5	20.00
Sherman, Ohio	21			151	13	8.61	206									1			16	4	25.00
Taylor, Ky.	19	2	10.53	102	6	5.88	973			43	13	30.23	7			51			23	2	8.70
Travis, Tex.	48	4	8.33	372	30	8.06	3,848	3	.08	52	26	50.00	67	9	13.43	177	2	1.13	24	10	41.67
Wadsworth, S. C.	12	4	33.33	39	1	2.56	8												2		
Wheeler, Ga.	69	19	27.54	611	90	14.73	2,929			54	30	55.56	62	30	48.39	32	1	3.13	20	12	60.00
Upton, N. Y.	6			44	4	9.09	45			4			3						1	1	
Total	974	145	14.89	4,172	443	10.62	30,180	10	.03	1,008	420	41.67	532	203	38.16	817	14	1.71	600	161	26.83

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[1] Case mortality for those diseases having less than 5 admissions not calculated.

TABLE No. 55.—*Admissions, deaths, and case mortality for selected infectious diseases,*[1] *by camps, United States enlisted men, 1917, showing absolute figures, ratio per 1,000 mean strength, and for each camp the percentage of admissions and deaths to total admissions and deaths, respectively.*

Camps.	Admissions.			Deaths.			Case mortality, per cent of admissions.[2]
	Number.	Ratio per 1,000 mean strength.	Per cent of total admissions.	Number.	Ratio per 1,000 mean strength.	Per cent of total deaths.	
Pike, Ark.	4,823	565.94	12.60	164	19.24	11.75	3.40
Travis, Tex	4,588	539.70	11.99	84	9.89	6.02	1.83
Bowie, Tex.	4,377	598.93	11.44	216	29.55	15.47	4.93
Wheeler, Ga.	3,777	656.18	9.87	182	31.61	13.04	4.82
Sevier, S. C.	3,180	444.50	8.31	135	18.88	9.67	4.24
Beauregard, La.	2,349	593.93	6.14	116	29.34	8.31	4.94
Shelby, Miss.	1,918	252.16	4.75	51	7.08	3.65	2.81
Jackson, S. C.	1,686	209.02	4.41	87	10.78	6.23	5.16
Doniphan, Okla.	1,268	178.29	3.31	35	4.92	2.51	2.80
Taylor, Ky.	1,218	182.95	3.18	23	3.45	1.65	1.89
Kearney, Cal.	1,202	221.98	3.14	40	7.39	2.87	3.33
MacArthur, Tex.	964	128.45	2.52	4	.53	.28	.42
Gordon, Ga.	879	116.11	2.30	28	3.70	2.01	3.19
Greene, N. C.	751	88.94	1.96	17	2.01	1.22	2.26
Cody, N. Mex	566	76.18	1.48	46	6.19	3.29	8.13
Lee, Va.	533	68.54	1.39	19	2.44	1.36	3.56
Dodge, Iowa	518	81.71	1.35	12	1.89	.86	2.32
Mills, N. Y.	464	31.88	1.21	10	.69	.72	2.15
Funston, Kans.	440	42.99	1.15	38	3.71	2.72	8.26
Sherman, Ohio.	395	43.87	1.03	17	1.88	1.22	4.30
Custer, Mich.	352	65.29	.92				
Logan, Texas.	333	36.59	.87	11	1.21	.79	3.30
McClellan, Ala.	290	29.95	.76	3	.31	.21	1.03
Lewis, Wash.	277	26.40	.72	14	1.33	1.00	5.05
Meade, Md.	273	37.32	.71	14	1.91	1.00	5.13
Devens, Mass.	245	29.24	.64	6	.72	.43	2.45
Grant, Ill.	229	32.85	.60	4	.57	.28	1.75
Sheridan, Ala.	229	38.79	.60	4	.68	.28	1.75
Upton, N. Y.	103	13.84	.27	5	.67	.36	4.85
Dix, N. J.	64	10.08	.17	3	.47	.21	4.69
Wadsworth, S. C.	61	6.64	.16	5	.55	.36	8.20
Hancock, Ga.	31	3.50	.08	3	.34	.21	9.68
Total	38,283	153.38	100.00	1,396	5.59	100.00	3.65

[1] Includes broncho-pneumonia, lobar pneumonia, measles (uncomplicated), measles complicated with broncho-pneumonia, measles with lobar pneumonia, measles with complications other than pneumonia, cerebrospinal meningitis (epidemic).

[2] Remaining cases, 1917, not subtracted from admissions.

TABLE NO. 56.—*Admissions from selected infectious diseases by State of occurrence (excluding camps), enlisted men in United States, 1917.*

States.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and bronchopneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).	Typhoid fever.	Syphilis.	Chancroid.	Gonorrhea.	Tuberculosis (pulmonary), chronic.
Alabama	6	59	303	6	1	5	1	3	44	101	716	11
Alaska	......	......	1	......	......	......	1	......	5	4	31	3
Arizona	30	145	447	28	42	73	8	......	156	218	487	39
Arkansas	4	32	179	3	2	1	2	1	27	56	171	5
California	39	103	905	12	5	30	14	1	352	177	1,293	183
Colorado	1	24	130	1	7	9	3	4	20	46	276	14
Connecticut	2	6	36	......	......	......	4	1	11	6	92	48
Delaware	......	7	27	......	......	1	2	......	4	10	45	1
District of Columbia	4	46	228	15	1	1	6	3	102	87	315	42
Florida	4	20	206	......	2	3	2	......	18	14	144	......
Georgia	46	228	1,407	29	11	54	23	14	335	404	2,428	290
Idaho	......	1	41	......	......	......	2	......	1	......	20	1
Illinois	7	68	108	......	......	......	6	1	48	68	599	42
Indiana	......	15	128	......	1	2	3	3	52	65	388	77
Iowa	12	19	59	......	......	......	......	1	42	28	489	62
Kansas	14	225	1,404	86	15	38	111	4	172	85	1,026	98
Kentucky	15	34	148	7	......	5	4	7	119	57	819	35
Louisiana	3	7	113	2	......	1	......	......	12	20	189	2
Maine	1	11	78	......	......	1	1	1	22	6	181	2
Maryland	5	7	46	......	1	......	1	......	44	37	413	12
Massachusetts	11	27	220	3	2	2	1	......	97	39	499	134
Michigan	4	8	53	......	......	3	2	......	20	29	270	8
Minnesota	......	24	67	1	......	1	4	1	43	94	376	83
Mississippi	4	14	450	......	7	2	2	1	15	14	151	3
Missouri	23	70	165	37	3	34	4	5	73	54	452	17
Montana	1	9	38	1	......	......	......	4	8	5	51	3
Nebraska	2	16	110	......	......	1	1	1	15	31	117	10
Nevada	......	1	2	......	......	......	......	......	2	......	4	1
New Hampshire	......	1	13	......	......	......	......	......	1	9	50	2
New Jersey	11	101	225	2	6	3	5	5	133	119	811	55
New Mexico	3	73	115	2	3	9	......	1	85	106	405	122
New York	36	162	729	12	6	26	11	2	367	270	2,345	204
North Carolina	2	13	64	......	1	......	1	2	11	21	89	3
North Dakota	......	......	2	......	......	......	......	......	......	1	4	......
Ohio	8	43	105	25	3	18	15	6	85	90	1,011	12
Oklahoma	5	30	188	......	2	3	2	......	45	69	286	18
Oregon	......	4	28	......	......	......	1	1	8	1	91	4
Pennsylvania	5	34	124	......	......	1	1	2	58	83	602	64
Rhode Island	1	3	84	......	......	......	1	1	33	14	125	5

South Carolina	6	15	262	2	1	2	1	3	57	80	470	32
South Dakota	....	1	10	....	....	....	1	....	1	2	4	....
Tennessee	....	51	70	....	....	1	....	2	7	28	109	3
Texas	107	665	3,517	64	37	147	70	10	1,076	1,789	5,768	312
Utah	2	40	142	2	....	8	4	....	9	12	118	23
Vermont	15	14	255	12	....	1	7	....	44	10	117	14
Virginia	39	226	423	8	7	28	32	10	166	224	784	224
Washington	8	19	217	1	2	4	3	4	69	91	1,193	34
West Virginia	1	4	10	....	....	....	....	....	3	2	19	1
Wisconsin	1	12	3	....	....	....	....	1	21	15	450	15
Wyoming	3	15	79	....	1	2	2	....	26	35	221	53
Others	3	40	214	3	2	3	6	2	42	57	370	47
Total	494	2,792	13,978	364	171	523	371	108	[1] 4,266	4,883	[2] 27,487	2,473

[1] Does not include 5 cases of syphilitic retinitis.

[2] Does not include 15 cases of gonorrheal stricture.

TABLE NO. 57.—*Admissions from selected infectious diseases by State of occurrence (excluding camps), enlisted men in United States, 1917 (ratios per 1,000 mean strength).*

States.	Bronchopneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and bronchopneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).	Typhoid fever.	Syphilis.	Chancroid.	Gonorrhea.	Tuberculosis (pulmonary), chronic.
Alabama	1.91	18.79	96.50	1.91	0.32	1.59	0.32	0.96	14.01	32.17	228.03	3.50
Alaska			1.48				1.48		7.41	5.93	45.93	4.41
Arizona	3.15	15.24	46.98	2.94	4.41	7.67	.84		16.40	22.91	51.19	4.10
Arkansas	1.78	14.24	79.66	1.34	.89	.44	.89	.44	12.02	21.92	76.10	2.23
California	1.43	3.79	33.30	.44	.18	1.10	.52	.04	12.95	6.51	47.58	6.73
Colorado	.25	5.93	32.11	.25	1.73	2.22	.74	.99	4.94	11.36	68.16	3.46
Connecticut	8.51	25.53	153.19				17.02	4.26	46.81	25.53	391.49	204.26
Delaware		5.72	22.08			.82	1.64		3.27	8.18	36.79	.82
District of Columbia	.52	6.04	29.93	1.97	.13	.13	.79	.39	13.39	11.42	41.35	5.51
Florida	1.00	5.02	51.75		.50	.75	.50		4.52	3.52	36.17	
Georgia	2.63	13.06	89.57	1.66	.63	3.09	1.32	.80	19.18	23.13	139.03	16.61
Idaho		2.74	112.33				5.48		2.74		54.79	2.74
Illinois	1.20	11.64	18.48				1.03	.17	8.21	11.64	102.52	7.19
Indiana		2.36	20.10		.16	.31	.47	.47	8.17	10.21	60.93	12.09
Iowa	5.91	9.36	29.08					.49	20.70	13.80	241.01	30.56
Kansas	2.50	40.19	250.76	15.36	2.68	6.79	19.82	.71	30.72	15.18	183.25	17.50
Kentucky	5.46	12.37	53.84	2.55		1.82	1.45	2.55	43.29	20.73	297.93	12.73
Louisiana	1.60	3.74	60.30	1.07		.53			6.40	10.67	100.85	1.07
Maine	.36	3.93	27.87			.36	.36	.36	7.86	2.14	64.67	.71
Maryland	2.68	2.91	19.09		.42		.42		18.26	15.36	171.44	4.98
Massachusetts	1.13	2.78	22.65	.31	.21	.21	.10		9.99	4.02	51.38	13.80
Michigan	1.15	2.30	15.22			.86	.57		5.74	8.33	77.54	2.30
Minnesota		4.80	13.41	.20		.20	.80	.20	8.61	18.81	75.25	16.61
Mississippi	1.73	6.06	194.64		3.03	.86	.86	.43	6.49	6.06	65.31	1.30
Missouri	4.60	13.99	32.98	7.40	.60	6.80	.80	1.00	14.59	10.79	90.35	3.40
Montana	.73	6.54	27.60	.73				2.90	5.81	3.63	37.04	2.18
Nebraska	1.03	8.27	56.88			.52	.52	.52	7.76	16.03	60.50	5.17
Nevada		14.29	28.57						28.57		57.14	14.29
New Hampshire		1.50	19.55						1.50	13.53	75.19	3.01
New Jersey	1.16	10.66	23.75	.21	.63	.32	.53	.53	14.04	12.56	85.59	5.80
New Mexico	.46	11.28	17.77	.31	.46	1.39		.15	13.13	16.38	62.58	18.85
New York	1.16	5.23	23.55	.39	.19	.84	.36	.06	11.86	8.72	75.76	6.59
North Carolina	1.89	12.28	60.43		.94		.94	1.89	10.39	19.83	84.04	2.83
North Dakota			666.67							333.33	1,333.33	
Ohio	1.53	8.23	20.10	4.79	.57	3.45	2.87	1.15	16.27	17.23	193.57	2.30
Oklahoma	1.66	9.95	62.38		.66	1.00	.66		14.93	22.89	94.89	5.97
Oregon		2.44	17.10				.61	.61	4.89	.61	55.59	2.44
Pennsylvania	.29	1.97	7.20			.06	.06	.12	3.37	4.82	34.96	3.72

	.43	1.30	36.51				.43	.43	14.34	6.08	54.32	2.17
South Carolina	3.93	9.84	171.80	1.31	.66	1.31	.66	1.97	37.38	52.46	308.20	20.98
South Dakota		5.81	58.14				5.81		5.81	11.63	23.26	
Tennessee		44.85	61.57			.88		1.76	6.16	24.63	95.87	2.64
Texas	1.86	11.58	61.22	1.11	.64	2.56	1.22	.17	18.73	31.14	100.41	5.43
Utah	.65	13.03	46.25	.65		2.61	1.30		2.93	3.91	38.44	7.49
Vermont	3.89	3.63	66.10	3.11		.26	1.81		11.40	2.59	30.33	3.63
Virginia	3.47	20.08	37.58	.71	.62	2.49	2.84	.89	14.75	19.90	69.66	19.90
Washington	1.05	2.49	28.46	.13	.26	.52	.39	.52	9.05	11.94	156.48	4.46
West Virginia	2.39	9.57	23.92						7.18	4.78	45.45	2.39
Wisconsin	.20	2.43	.61					.20	4.25	3.04	91.13	3.04
Wyoming	1.08	5.41	28.48		.36	.72	.72		9.37	12.62	80.75	19.11
Others	5.07	67.57	361.49	5.07	3.38	5.07	10.14	3.38	70.95	97.97	625.00	79.39
Total	1.60	9.03	45.23	1.18	.55	1.69	1.20	.35	13.61	15.80	88.93	8.00

TABLE NO. 58.—*Deaths, 1917, from selected infectious diseases by State of occurrence (not including camps), enlisted men in United States (absolute numbers and ratio for totals).*

States.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and broncho-pneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).
Alabama		1	1		1	1	1
Alaska							1
Arizona	6	16		6	10	2	4
Arkansas	1	2		2	2		1
California	6	12		7	2	1	3
Colorado		5			4		1
Connecticut							3
Delaware							1
District of Columbia	1	6	1	3	1		2
Florida							1
Georgia	6	9		18	2	2	4
Idaho							1
Illinois		8					1
Indiana		1					2
Iowa		3					
Kansas	1	35	1	36	10	3	38
Kentucky	5	5		5			2
Louisiana							
Maine		3					1
Maryland							1
Massachusetts		4		3	2		1
Michigan		2					2
Minnesota		1					1
Mississippi		4			4		
Missouri	5	3		27	2	3	3
Montana		2		1			
Nebraska							1
Nevada							
New Hampshire							
New Jersey	1	7		2			4
New Mexico		11					
New York	5	16	1	7	3		4
North Carolina							
North Dakota							
Ohio	3	4		25	2	4	4
Oklahoma		5			1	1	
Oregon		5					

Rhode Island							1
South Carolina		1	1	1	1		1
South Dakota							1
Tennessee		7					
Texas	8	80	5	37	12	6	28
Utah		4		1			2
Vermont	3	3		2			2
Virginia	4	21		4	1		10
Washington		2				2	1
West Virginia							1
Wisconsin		2					
Wyoming		1			1		1
Others		1		2			5
Total	[1] 55	[2] 292	10	[3] 189	[4] 61	25	141
Ratio per 1,000 mean strength	0.18	0.94	0.03	0.61	0.20	0.08	0.46

[1] Two deaths of remaining 1916 cases to be added to deaths, making total deaths 57.

[2] Twelve deaths of remaining 1916 cases to be added to deaths, making total deaths 304.

[3] Thirteen deaths of remaining 1916 cases to be added to deaths, making total deaths 202.

[4] Two deaths of remaining 1916 cases to be added to deaths, making total deaths 63.

TABLE NO. 59.—*Admissions, deaths, and case mortality for selected infectious diseases,*[1] *by State of occurrence (not including camps), United States enlisted men, 1917, showing absolute numbers, ratios per 1,000 mean strength, and for each State the percentage of admissions and deaths to total admissions and deaths, respectively.*

States.	Admissions.			Deaths.		Case mortality
	Numbers.	Ratio per 1,000 mean strength.	Per cent of total admissions.	Numbers.	Per cent of total deaths.	Per cent of admissions.[2]
Texas	4,607	80.19	24.65	176	22.77	3.82
Kansas	1,893	338.10	10.13	124	16.04	6.55
Georgia	1,798	102.96	9.62	41	5.30	2.28
California	1,108	40.76	5.93	31	4.01	2.80
New York	982	31.73	5.25	36	4.66	3.66
Arizona	773	81.23	4.14	44	5.69	5.69
Virginia	763	67.79	4.08	40	5.17	5.24
Mississippi	479	207.18	2.56	8	1.03	1.67
Alabama	381	121.34	2.04	5	.64	1.31
New Jersey	353	37.26	1.89	14	1.81	3.97
Missouri	336	67.17	1.80	43	5.56	12.80
Vermont	304	78.80	1.63	10	1.29	3.29
District of Columbia	301	39.51	1.61	14	1.81	4.65
South Carolina	289	189.51	1.55	5	.64	1.73
Massachusetts	266	27.39	1.42	10	1.29	3.76
Washington	254	33.30	1.36	5	.64	1.97
Florida	237	59.52	1.27	1	.13	.42
Oklahoma	230	76.31	1.23	7	.91	3.04
Arkansas	223	99.24	1.19	8	1.03	3.59
Ohio	217	41.54	1.16	42	5.43	19.35
Kentucky	213	77.49	1.14	17	2.20	7.98
New Mexico	205	31.67	1.10	11	1.42	5.37
Utah	198	64.49	1.06	7	.90	3.54
Illinois	189	32.35	1.01	9	1.16	4.76
Colorado	175	43.23	.94	10	1.29	5.71
Pennsylvania	165	9.58	.88	5	.64	3.03
Indiana	149	23.40	.80	3	.39	2.01
Nebraska	130	67.22	.70	1	.13	.77
Louisiana	126	67.24	.67			
Tennessee	122	107.30	.65	7	.91	5.74
Wyoming	102	36.77	.55	3	.39	2.94
Minnesota	97	19.41	.52	2	.26	2.06
Maine	92	32.88	.49	4	.52	4.35
Iowa	90	44.35	.48	3	.39	3.33
Rhode Island	89	38.67	.48	1	.13	1.12
North Carolina	81	76.48	.43			

Michigan	70	20.10	.37	4	.52	5.71
Maryland	60	24.92	.32	1	.13	1.66
Montana	49	35.58	.26	3	.39	6.12
Connecticut	48	204.25	.26	3	.39	6.25
Idaho	44	120.55	.24	1	.13	2.27
Delaware	37	30.26	.20	1	.13	2.70
Oregon	33	20.15	.18			
Wisconsin	16	3.24	.09	2	.26	12.50
West Virginia	15	35.88	.08	1	.13	6.67
New Hampshire	14	21.05	.07			
South Dakota	12	69.76	.06	1	.13	8.33
Nevada	3	42.86	.02			
North Dakota	2	666.67	.01			
Alaska	2	2.96	.01	1	.13	50.00
Others	271	457.77	1.45	8	1.03	2.95
Total	18,693	60.48	100.00	[3] 773	100.00	4.11

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[1] Broncho-pneumonia, lobar pneumonia, measles uncomplicated, measles complicated with broncho-pneumonia, measles with lobar pneumonia, measles with complications other than pneumonia and cerebrospinal meningitis (epidemic).

[2] Remaining cases 1917 not subtracted from admissions.

[3] Total number of deaths for selected infectious diseases 773, ratio per 1,000 of mean strength 2.50.

TABLE No. 60.—*Admissions from selected infectious diseases, United States enlisted men, 1917, by nativity (absolute numbers).*

States.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and bronchopneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).	German Measles.	Syphilis.	Chancroid.	Gonorrhea.	Tuberculosis (pulmonary), chronic.	Mumps.	Scarlet fever.
Alabama	62	498	2,881	92	82	120	38	162	271	251	1,344	171	2,092	18
Alaska			5	1				3		1	6	2	2	
Arizona		10	44	1	2		3	13	16	8	139	25	24	4
Arkansas	102	202	2,137	99	36	50	34	95	119	155	700	123	1,184	45
California	31	106	811	16	15	23	17	676	111	99	1,240	244	203	148
Colorado	12	36	204	3		5	7	87	47	47	362	112	82	29
Connecticut	7	31	92	1		2	9	42	44	39	266	63	19	10
Delaware	3	4	27	2				2	13	8	91	5	9	
District of Columbia	1	11	18					12	41	41	126	15	12	5
Florida	32	287	1,091	21	24	26	16	64	59	56	408	43	674	1
Georgia	76	398	2,296	54	33	67	25	222	409	375	1,871	188	1,680	15
Idaho		14	48	1		2		32	7	9	97	15	52	11
Illinois	45	304	1,510	32	18	34	51	401	496	471	2,854	329	529	145
Indiana	45	162	1,534	31	12	58	21	223	296	204	1,460	169	485	84
Iowa	22	195	959	12	13	24	22	552	165	146	1,136	167	338	137
Kansas	22	176	1,273	28	14	44	46	337	149	123	904	135	475	75
Kentucky	37	254	1,870	70	24	84	47	292	392	277	915	224	1,046	27
Louisiana	97	212	1,885	81	20	30	28	82	137	116	561	75	313	30
Maine	6	20	233	2	1	2		57	49	25	710	57	33	10
Maryland	11	46	146	3		3	7	79	112	82	482	50	40	10
Massachusetts	15	91	310	1	1	4	8	108	183	122	1,004	138	97	22
Michigan	19	106	648	8	6	12	18	189	197	185	1,333	162	454	79
Minnesota	12	89	441	8	9	7	4	437	119	101	814	99	156	93
Mississippi	68	236	2,268	84	46	55	30	79	134	116	650	136	1,614	42
Missouri	48	332	2,024	91	41	71	91	533	448	264	2,023	281	680	91
Montana	3	32	73	1		2	2	63	19	28	198	10	39	22
Nebraska	13	152	581	14	8	14	28	502	90	77	718	69	288	50
Nevada		4	9			1	2	11	3	4	45		5	3
New Hampshire	5	15	71	5	2	1	2	21	22	16	97	50	11	5
New Jersey	20	57	148	1	3	6	8	54	97	92	817	84	43	29
New Mexico	6	15	74	4	1	1	5	10	30	38	296	82	32	1
New York	58	230	657	18	3	15	20	308	475	412	3,241	384	215	88
North Carolina	34	123	1,749	113	17	78	52	197	215	204	850	124	638	4
North Dakota		19	129		2	3	2	53	11	9	119	14	49	17
Ohio	43	202	835	8	8	18	38	367	418	357	2,231	204	403	101
Oklahoma	18	96	663	10	13	14	12	58	103	146	925	48	378	16
Oregon	6	28	210	5		10	7	122	39	33	264	35	107	43
Pennsylvania	45	228	644	7	6	10	46	303	622	574	3,597	346	317	118

Rhode Island	**4**	**10**	**22**				**2**	**7**	**18**	**17**	**130**	**18**	8	1
South Carolina	28	120	1,007	61	13	25	30	149	141	123	597	73	500	1
South Dakota	3	31	185	1	3	12	9	138	32	24	157	18	82	29
Tennessee	59	217	2,644	137	22	100	66	369	291	232	1,239	220	802	13
Texas	211	901	6,163	196	169	227	49	243	407	443	2,753	251	2,746	25
Utah	2	12	78	1	2	1	1	50	15	18	136	6	60	20
Vermont	6	18	141	1	2	1		29	20	10	83	19	31	3
Virginia	22	122	748	18	15	17	12	270	204	168	870	144	1,532	8
Washington	6	45	162	4		6	2	159	49	36	410	34	100	45
West Virginia	11	37	336	9	4	22	10	69	118	108	479	42	286	2
Wisconsin	20	116	1,022	8	7	13	9	170	104	126	1,048	157	154	91
Wyoming		6	37		1			32	4	3	50	7	26	4
Others	72	308	1,015	8	5	20	35	449	908	833	4,799	670	580	96
Total	1,468	6,964	44,158	1,372	703	1,340	971	8,982	[1] 8,469	7,452	[2] 47,645	6,137	21,725	1,966

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[1] Does not include 5 cases of syphilitic retinitis.

[2] Does not include 15 cases of gonorrheal stricture.

TABLE No. 61.—*Deaths from selected infectious diseases, United States enlisted men, 1917, by nativity.*

States.	Broncho-pneumonia.	Lobar pneumonia.	Measles (uncomplicated).	Measles and bronchopneumonia.	Measles and lobar pneumonia.	Measles with complications other than pneumonia.	Cerebrospinal meningitis (epidemic).
Alabama	14	59	1	40	29	3	13
Alaska							
Arizona		1			1		1
Arkansas	16	22	1	44	16	2	7
California	2	14	1	10	5		6
Colorado	1	2		1			
Connecticut	1	3					5
Delaware		1					
District of Columbia							
Florida	7	34	2	14	8	2	4
Georgia	17	52		28	13	2	11
Idaho		2					
Illinois	2	27	2	17	4		9
Indiana	6	13	1	18	6	3	6
Iowa		19	1	3	6	1	6
Kansas	1	17		9	6	2	15
Kentucky	5	27		42	7	1	11
Louisiana	19	31		30	8		9
Maine		4	1	1	1		
Maryland		4		2			6
Massachusetts	1	5	1		1		6
Michigan		13		4	3		5
Minnesota	3	11		2	4		2
Mississippi	8	28		43	15	2	11
Missouri	8	39		44	22	5	32
Montana		4		1			1
Nebraska	1	14		5	3		7
Nevada							
New Hampshire	1	1		5			1
New Jersey	2	4			1		2
New Mexico				1			1
New York	8	25		11	4	1	10
North Carolina	10	24		41	4	3	22
North Dakota		1			2		
Ohio	2	21		3	4	1	13
Oklahoma	4	7		4	7		4
Oregon		2		2		2	3
Pennsylvania	2	26		2	2		10

Rhode Island	1	1	....	....	....	....	....
South Carolina	7	14	1	25	5	....	6
South Dakota	1	2	....	....	1	2	3
Tennessee	15	26	5	56	8	2	21
Texas	21	85	2	94	56	2	14
Utah	....	2	....	....	....	....	....
Vermont	2	3	....	1	1	....	....
Virginia	1	15	....	9	8	1	2
Washington	....	5	1	1	....	1	1
West Virginia	1	4	....	3	1	1	1
Wisconsin	3	11	....	2	1	....	2
Wyoming	....	1	....	....	....	....	....
Others	9	21	....	4	3	....	13
Total	202	747	20	622	266	39	302

TABLE NO. 62.—*Admissions, deaths, case mortality for selected infectious diseases,*[1] *by nativity, United States enlisted men, 1917, showing for each State the percentage of admissions and deaths to total admissions and deaths, respectively.*

States.	Admissions.		Deaths.		Case mortality.
	Number.	Percentage of total admissions.	Number.	Percentage of total deaths.	Percentage of admissions.[2]
Texas	7,916	13.90	274	12.47	3.46
Alabama	3,773	6.62	159	7.23	4.21
Tennessee	3,245	5.70	133	6.05	4.10
Georgia	2,949	5.18	123	5.60	4.17
Mississippi	2,787	4.89	107	4.87	3.84
Missouri	2,698	4.74	150	6.82	5.56
Arkansas	2,660	4.67	108	4.91	4.06
Kentucky	2,386	4.19	93	4.23	3.90
Louisiana	2,353	4.13	97	4.41	4.12
North Carolina	2,166	3.80	104	4.73	4.80
Illinois	1,994	3.50	61	2.78	3.06
Indiana	1,863	3.27	53	2.41	2.84
Kansas	1,603	2.81	50	2.27	3.12
Florida	1,497	2.63	71	3.23	4.74
South Carolina	1,284	2.25	58	2.64	4.52
Iowa	1,247	2.19	36	1.64	2.89
Wisconsin	1,195	2.10	19	.86	1.59
Ohio	1,152	2.02	44	2.00	3.82
California	1,019	1.79	38	1.73	3.73
New York	1,001	1.76	59	2.68	5.89
Pennsylvania	986	1.73	42	1.91	4.26
Virginia	954	1.67	36	1.64	3.77
Oklahoma	826	1.45	26	1.18	3.15
Michigan	817	1.43	25	1.14	3.06
Nebraska	810	1.42	30	1.36	3.70
Minnesota	570	1.00	22	1.00	3.86
Massachusetts	430	.75	14	.64	3.26
West Virginia	429	.75	11	.50	2.56
Colorado	267	.47	4	.18	1.50
Oregon	266	.47	9	.41	3.38
Maine	264	.46	7	.32	2.65
South Dakota	244	.43	9	.41	3.69
New Jersey	243	.43	9	.41	3.70
Washington	225	.39	9	.41	4.00
Maryland	216	.38	12	.55	5.56
Vermont	169	.30	7	.32	4.14
North Dakota	155	.27	3	.14	1.94
Connecticut	142	.25	9	.41	6.34

Montana	113	.20	6	.27	5.31
New Mexico	106	.19	2	.09	1.89
New Hampshire	101	.18	8	.36	7.92
Utah	97	.17	2	.09	2.06
Idaho	65	.11	2	.09	3.08
Arizona	60	.10	3	.14	5.00
Wyoming	44	.08	1	.05	2.27
Rhode Island	38	.07	2	.09	5.26
Delaware	36	.06	1	.05	2.78
District of Columbia	30	.05			
Nevada	16	.03			
Alaska	6	.01			
Others	1,463	2.57	50	2.27	3.43
Total	56,976	100.00	2,198	100.00	3.86

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[1] Includes broncho-pneumonia, lobar pneumonia, measles (uncomplicated), measles and broncho-pneumonia, measles and lobar pneumonia, measles with complications other than pneumonia, cerebrospinal meningitis (epidemic).

[2] Remaining cases, 1917, not subtracted from admissions.

D. HEALTH OF THE ARMY BY COUNTRIES.

I. Officers.

1. ADMISSIONS.

The admission rate for diseases for officers serving in all countries where American troops were serving in 1917 was 405.64 as compared with 447.40 in 1916.

Table No. 67 shows diseases causing the highest admission rate arranged in the order of their percentage.

2. DEATHS.

The death rate for diseases for officers serving in all countries where American troops were stationed for 1917 was 2.03 per 1,00 as compared with 5.04 in 1916. This great difference was, no doubt due to the fact that a great many officers were commissioned during the year 1917 and the relative age was much lower than the yea 1916.

Table No. 68 shows diseases causing the greatest number of deaths arranged in the order of their percentage. Lobar pneumonia heads the list with a total of 25 per cent.

3. NONEFFECTIVE RATES.

The noneffective rate for diseases for officers in 1917 was 9.76 a compared with 20.31 in 1916.

Table No. 70 shows the diseases causing the loss of the greates amount of time arranged in the order of their percentage.

II. United States Enlisted Men.

1. ADMISSIONS.

The admission rate for diseases for the enlisted men serving i the United States for the year 1917 was 886.81 per 1,000. For 191 the corresponding rate was 608.11. There was consequently a increase of 278.70 for the year 1917 over the year 1916. A considerable amount of this increase was due to the number of infectiou diseases which occurred among the men who had recently bee inducted into the military service.

In the large camps the annual admission rate per one thousan for certain selected infectious diseases, that is broncho-penumonia lobar pneumonia, measles, and cerebrospinal meningitis was 153.38 For the posts other than the camps the corresponding rate was 60.48 Thus is seen at a glance the notable increase in infectious disease which occurred in the camps over the other military posts. Th total rate for these diseases in 1917 was 101.99 as compared wit 23.49 in 1916.

Other infectious diseases have also markedly increased in 191 These diseases were principally mumps and German measles.

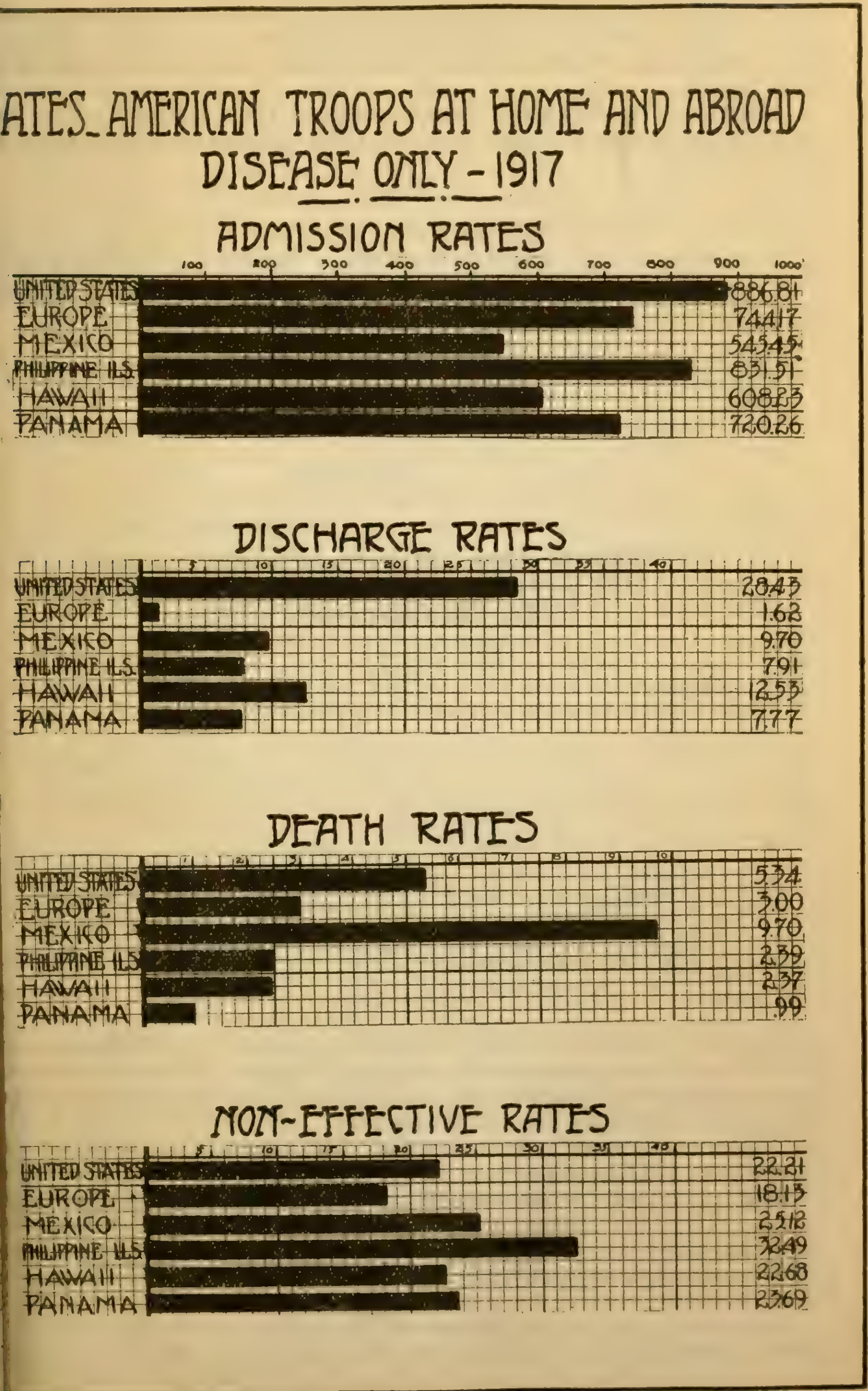
ATES_AMERICAN TROOPS AT HOME AND ABROAD
DISEASE ONLY - 1917
ADMISSION RATES
100 200 300 400 500 600 700 800 900 1000
UNITED STATES 886.81
EUROPE 744.17
MEXICO 545.45
PHILIPPINE ILS. 831.51
HAWAII 608.23
PANAMA 720.26
DISCHARGE RATES
5 10 15 20 25 30 35 40
UNITED STATES 28.43
EUROPE 1.62
MEXICO 9.70
PHILIPPINE ILS. 7.91
HAWAII 12.53
PANAMA 7.77
DEATH RATES
1 2 3 4 5 6 7 8 9 10
UNITED STATES 5.34
EUROPE 3.00
MEXICO 9.70
PHILIPPINE ILS. 2.39
HAWAII 2.37
PANAMA .99
NON-EFFECTIVE RATES
5 10 15 20 25 30 35 40
UNITED STATES 22.21
EUROPE 18.13
MEXICO 25.12
PHILIPPINE ILS. 32.49
HAWAII 22.68
PANAMA 23.69

CHART No. 40.

In addition to the infectious diseases, as a result of the hasty and many times imperfect physical examinations, a number of men were taken into the service who were within a short time admitted to sick report.

Table No. 71 shows the diseases causing the greatest number of admissions arranged in the order of their prevalence in the United States in 1917.

2. DEATHS.

The death rate for diseases only for enlisted men serving in the United States in 1917 was 5.34 per 1,000. In 1916 the corresponding rate was 2.78. There was thus an increase of 2.56 in 1917 over the year 1916. An examination of the tables shows that for the specia infectious diseases mentioned under admissions, that is—broncho-pneumonia, lobar pneumonia, measles, and cerebrospinal meningitis, the death rate for 1917 was 3.93. The corresponding deatl rate for these diseases in 1916 was .72. The increase for these disease in the year 1917 over the year 1916 was 3.21 per 1,000.

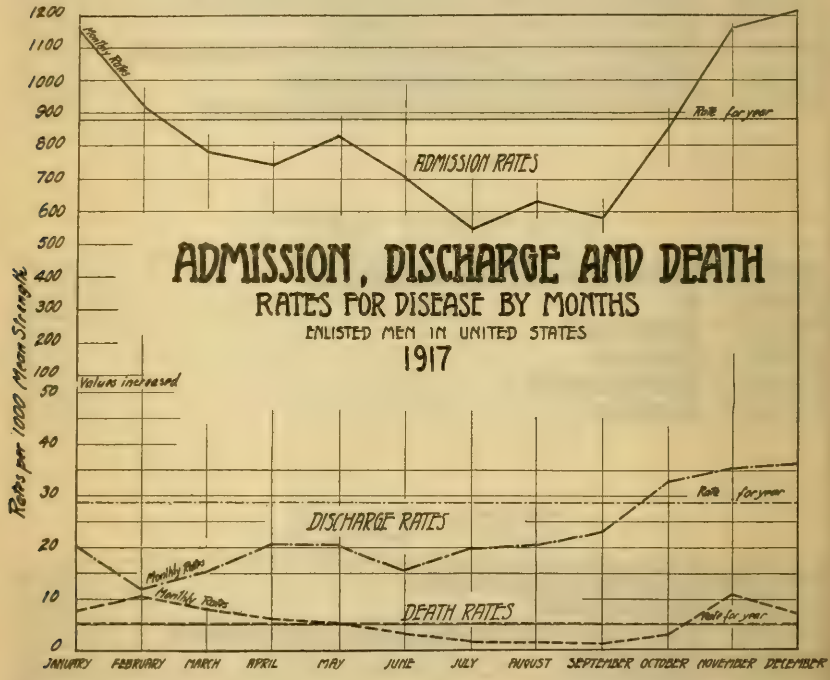

Chart No. 41.

Had it not been for this notable increase in the death rate for thes special infectious diseases in 1917, the death rate for diseases woul have actually been lower in 1917 than in 1916. Excluding thes diseases, the figures would then have been for 1916, 2.08; and for 1917 1.41 per 1,000.

An examination of the figures for the camps and for the militar posts outside of the camps shows that the rate in the large camp was 5.59 per 1,000, while the corresponding rate for posts other tha camps was 2.50. In other words, the death rate in the camps for the special infectious diseases mentioned was more than twice as high as that for the posts outside of the camps. This, no doubt, was due to the fact that as a result of military necessity a large number of men were hastily assembled in these camps under unfavorable circumstances, such as overcrowding in barracks and tents and the inability to secure the proper clothing as early as desirable.

A discussion of the prevalence of these diseases among the troops in the various sections of this country can be found in another place in the report.

Table No. 72 shows the principal causes of deaths arranged in the order of their percentage.

Measles with all complications caused 31.74 per cent of all deaths from diseases. In charging to measles the deaths which occurred as the result of various complications following measles the international rules for the tabulation of causes of death have been followed.

3. DISCHARGES.

The rate for discharges for disability for enlisted men serving in the United States in 1917 was 28.43 per 1,000. The corresponding rate for 1916 was 14.66. There was thus an increase of 13.77 per 1,000.

Table No. 73 shows the principal causes of discharges arranged in the order of their percentage.

It will be noticed that tuberculosis heads the list with 23.15 per cent of the total number discharged for disease.

It will also be noticed that of the total number discharged 15,882 for diseases; in the opinion of medical officers who recommended their discharge, 14,774 were classified as not in line of duty, and 1,108 were classified as having occurred in line of duty. The apparent reason for this large number of discharges was the military necessity of hastily inducting into the service a large number of men often with imperfect examinations.

The work of the physical examinations at camps in the first few months of the year was on the basis of emergency work and was made by a hastily gathered personnel, consisting in part of regimental surgeons and in part of representatives of special boards detailed by the various divisions of the Surgeon General's Office. The examinations were conducted in any sort of a building that could be spared from the pressing need of shelter for troops or anticipated need of medical care. The equipment in many cases consisted of emergency recruiting outfits. The examinations were well organized for the most part by the division surgeons. From Washington assistance and supervision were given by the Sanitary Division, whose inspectors had, however, very many other duties such as the investigation of water, sewage, latrines, control of mosquitoes, flies, extra limital food-booths and epidemiological matters.

As the housing of the physical examinations had been temporary and changeable, so has been the examining personnel. At the beginning the backbone of the examining personnel was a group of special examiners or boards representing divisions of the Surgeon General's Office, such as the Neuro-psychiatric, the Cardio-vascular and the Tuberculosis Boards. For the routine examining the officer in charge had to call upon the regimental surgeons and the base hospital for temporary loans of medical officers. As the physical examinations developed into a continuous function, it became more and more impracticable to borrow medical officers.

The work of making the physical examinations has been faithfully done, but it has failed sufficiently to sort out the fit and the unfit for warfare. This partial failure must be ascribed to the fact that making physical examinations on so great a scale was a new experience for most of the physicians engaged. There were not in this country enough medical men with the proper training to do the work adequately. The cost of the failure must be set down to education. It was impossible for the number of experienced men available to make the examinations properly in the time alloted. Consequently, many men were passed with defects and diseases undetected.

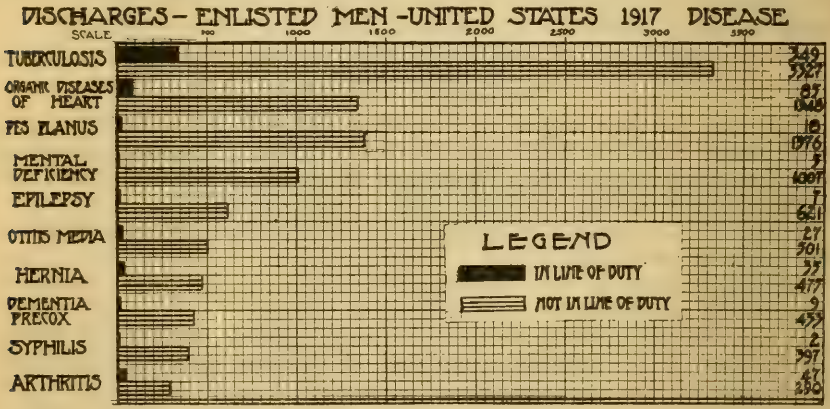

CHART No. 42.

4. NONEFFECTIVE RATES.

The noneffective rates for enlisted men serving in the United States for 1917 was 22.21 per 1,000 as compared with the corresponding rate of 26.30 for 1916. It is interesting to note that in spite of the fact that the admission rate increased and the death rate increased in 1917 the noneffective rate actually decreased.

Table No. 74 shows the diseases causing the loss of the greatest amount of time in 1917, arranged in the order of their percentage.

Measles, which headed the list for deaths, again heads the list for noneffective rates; 11.84 per cent of the total days lost for diseases in the United States in 1917 was caused by measles.

III. AMERICAN EXPEDITIONARY FORCES.

1. ADMISSIONS.

For the troops serving in the American Expeditionary Forces the annual admission rate for diseases per 1,000 in 1917 was 744.17. This rate is to be compared with the corresponding rate of 886.81 in the United States. The rate in the American Expeditionary Forces was consequently lower than that in the United States. This, no doubt, is to be explained by the fact that the troops which were sent to the American Expeditionary Forces were more immune from the diseases on account of the time spent in camps in training and also by the fact that many who had been inducted into the military service with defects or diseases as the result of hasty examinations were eliminated before the troops were transferred to the American Expeditionary Forces.

Table No. 76 shows the principal causes in admission rates arranged in the order of their percentage.

2. DEATHS.

The death rate from diseases for 1917 in the American Expeditionary Forces was 3.00 per 1,000 as compared with the corresponding rate of 5.34 in the United States. Here again, as mentioned under the subject of admissions, the fact that the men while in training in camps in the United States had acquired an immunity to infectious diseases diminished the infectible material before transfer to the American Expeditionary Forces.

Table No. 77 shows the principal causes of deaths, arranged in the order of their percentage. Of the total deaths in Europe lobar pneumonia, broncho-pneumonia, and measles caused 51.83 per cent as compared with 63.54 per cent for the same diseases in the United States. Cerebrospinal meningitis caused 13.87 per cent of the deaths from diseases in Europe as compared with 10.12 per cent in the United States.

3. DISCHARGES.

The rate for discharges for disability of the troops serving in the American Expeditionary Forces for diseases was very low—that is, 1.62 as compared with 28.43 in the United States. All the discharges resulting from diseases which began in Europe were charged back to the American Expeditionary Forces even though the discharge actually occurred in the United States. This very low rate is, no doubt, to be explained by the fact that the troops were very carefully examined before departing for the American Expeditionary Forces and most of the physically unfit were eliminated by being left in this country.

Another factor was that the troops in the American Expeditionary Forces were serving there a comparatively short time during 1917, and consequently the time was too limited for many disabilities to result from diseases occurring there.

Table No. 78 shows the number of discharges in the American Expeditionary Forces, with the diseases arranged in the order of their percentage. Tuberculosis here as in the United States heads the ist, the percentage being 27.03. The number discharged, however, s too small to be accepted as of much value.

4. NONEFFECTIVE RATES.

The noneffective rate for the troops serving in the American Expeditionary Force was 18.13 per 1,000 as compared with 22.21 for he United States.

Table No. 79 shows the diseases causing the loss of the greatest mount of time, arranged in the order of the percentage.

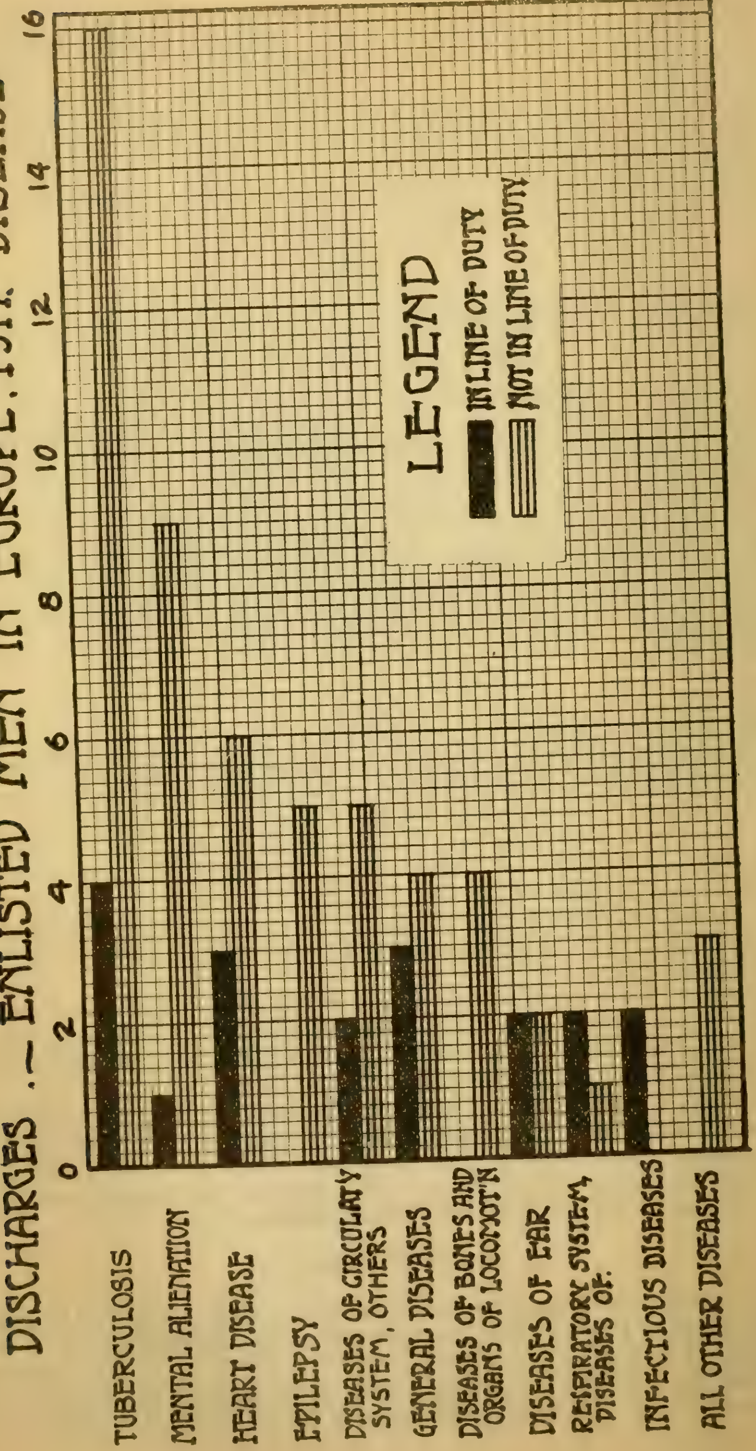
DISCHARGES .— ENLISTED MEN IN EUROPE. 1917. DISEASE
0
2
4
6
8
10
12
14
16
LEGEND
IN LINE OF DUTY
NOT IN LINE OF DUTY
TUBERCULOSIS
MENTAL ALIENATION
HEART DISEASE
EPILEPSY
DISEASES OF CIRCULATORY SYSTEM, OTHERS
GENERAL DISEASES
DISEASES OF BONES AND ORGANS OF LOCOMOT'N
DISEASES OF EAR
RESPIRATORY SYSTEM, DISEASES OF.
INFECTIOUS DISEASES
ALL OTHER DISEASES

CHART NO. 43.

IV. American Troops Serving in Philippine Islands, Hawaii, Panama, Mexico, China, and on Transports.

1. ADMISSIONS.

Due to the relatively small number of enlisted men of American troops serving in these countries during the year 1917 and the absence of any point of special interest, these countries have been grouped here for the purpose of discussion.

The chief statistics for them, however, are to be found in tables on pages 508–559.

The admission rate for all enlisted men serving in these various countries for the year 1917 was 969.28, as compared with the corresponding rate of 637.87 in 1916 and as compared with the corresponding rate for the United States of 886.81 per 1,000. The admission rate was consequently considerably higher than the corresponding rate for 1916, and higher than the rate for the United States.

Table No. 63 shows a comparison of rates for the principal diseases for these countries as compared with the United States and Europe.

Table No. 80 shows the diseases causing the highest admission rate arranged in the order of their percentage. Gonorrhea here heads the list with 8.78 per cent.

2. DEATHS.

The death rate for American troops serving in these countries was 3.85 for 1917 as compared with 2.30 per 1,000 for 1916.

Table No. 81 shows diseases causing the highest death rates arranged in the order of their percentage. Lobar pneumonia and tuberculosis heads the list with 17.93 and 11.03 per cent, respectively.

Table No. 65 shows a comparison of the principal diseases causing deaths for the troops serving in the United States, Europe, etc.

3. DISCHARGES.

The discharge rate for diseases for American troops serving in these countries in 1917 was 14.78 as compared with 14.02 in 1916 and as compared with 28.43 for 1917 in the United States.

Table No. 64 shows a comparison for the causes of discharge of these countries as compared with the United States, Europe, etc. Here, as elsewhere, tuberculosis caused the greatest number, the ratio per 1,000 being 2.71.

Table No. 82 shows diseases causing the greatest number of discharges arranged in the order of their percentage. Tuberculosis and pes planus head the list with 20.64 and 9.07 per cent, respectively.

4. NONEFFECTIVE RATES.

The noneffective rate for American troops serving in these countries for 1917 was 31.81 per 1,000 as compared with 20.22 in 1916, and with the corresponding rate for troops serving in the United States for 1917 of 22.21.

Table No. 83 shows diseases causing the loss of the greatest amount of time arranged in the order of their percentage. As for admissions, so for time lost, gonorrhea heads the list with 10.33 per cent.

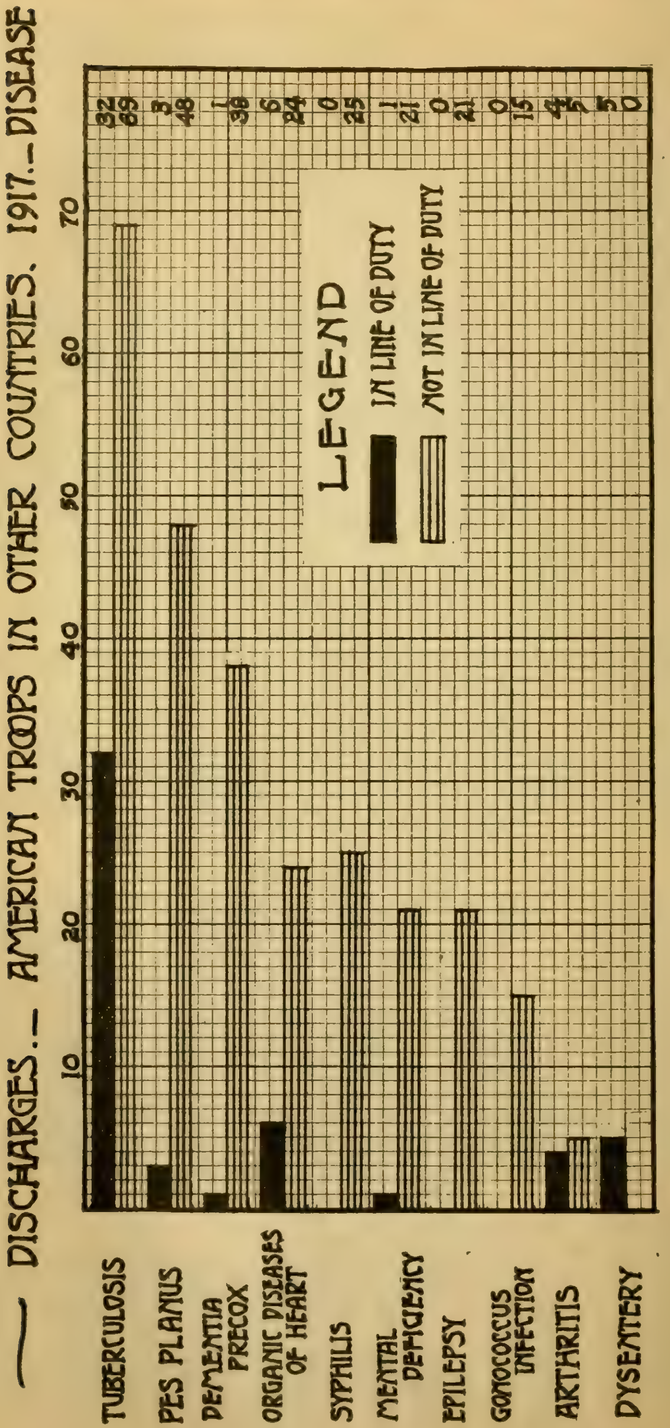
DISCHARGES.— AMERICAN TROOPS IN OTHER COUNTRIES. 1917.—DISEASE

CHART NO. 44.

V. NATIVE TROOPS: PORTO RICANS AND PHILIPPINE SCOUTS.

No detailed discussion of the native troops for the year 1917 is necessary. There was no epidemic or anything of special interest to discuss.

On pages 508–715 can be found the statistics in detail for these troops. The general condition of the health among these troops for the year was satisfactory.

1. PORTO RICANS.

For the Porto Rican troops serving in Porto Rico and Panama the admission rate for diseases in 1917 was 946.18 as compared with 954.97 in 1916. The death rate for diseases for these troops in 1917 was 1.04 as compared with 3.14 in 1916. The discharge rate for diseases was 7.31 in 1917 as compared with 11.52 in 1916. The noneffective rate for diseases was 19.83 in 1917 as compared with 22.88 in 1916. The time lost for each soldier by sickness in 1917 was 7.24 as compared with 9.37 in 1916.

2. PHILIPPINE SCOUTS.

The admission rate for diseases was 481.76 in 1917 as compared with 407.06 in 1916. The death rate for diseases was 1.27 as compared with 2.33 in 1916. The discharge rate for diseases was 4.72 in 1917 as compared with 6.45 in 1916. The noneffective rate for diseases for 1917 was 14.56 as compared with the corresponding rate of 12.43 in 1916. The available time lost for each soldier was 5.32 in 1917 as compared with 4.55 in 1916.

TABLE No. 63.—*Admissions for Army,*[1] *1917, at home and abroad, selected diseases.*

Diseases.	United States.		Europe.		Other countries.		Officers.		Total.	
	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.
Total admissions from disease	495,431	886.81	33,972	744.17	38,706	905.42	12,782	405.64	580,891	856.04
Gonococcus infection	47,660	85.31	1,676	36.71	3,399	79.51	138	4.38	52,873	77.92
Measles	47,573	85.15	1,316	28.83	1,431	33.47	447	14.19	50,767	74.81
Disease of tonsils	43,021	77.01	1,648	36.10	1,922	44.96	1,250	39.67	47,841	70.50
Bronchitis	41,233	73.81	5,927	129.83	2,748	64.28	1,705	54.11	51,613	76.06
Influenza	32,248	57.72	4,618	101.16	2,084	48.75	1,562	49.57	40,512	59.70
Mumps	21,725	38.89	3,747	82.08	1,338	31.30	161	5.11	26,971	39.75
Typhoid vaccination and vaccinia	18,419	32.97	125	2.74	694	16.23	370	11.74	19,608	28.89
German measles	8,982	16.08	163	3.57	363	8.49	224	7.11	9,732	14.34
Syphilis	8,474	15.17	441	9.66	1,318	30.83	68	2.16	10,301	15.18
Disease of pharynx	8,096	14.49	529	11.59	549	12.84	462	14.66	9,636	14.20
Chancroid	7,452	13.34	480	10.51	1,643	38.43	13	.41	9,588	14.13
Tuberculosis	7,274	13.02	175	3.83	336	7.86	143	4.53	7,928	11.69
Lobar pneumonia	6,964	12.47	335	7.34	263	6.15	118	3.75	7,680	11.32
Otitis media	5,876	10.52	359	7.86	264	6.18	103	3.27	6,602	9.73
Appendicitis	5,448	9.75	381	-8.35	572	13.38	254	8.06	6,655	9.81
Hernia	5,038	9.02	367	8.04	227	5.31	144	4.57	5,776	8.51
Rheumatic fever	4,819	8.63	366	8.02	159	3.72	79	2.51	5,423	7.99
Pes planus	4,707	8.43	251	5.50	209	4.89	23	.73	5,190	7.65
Disease of larynx	4,633	8.29	448	9.81	160	3.74	305	9.68	5,546	8.17
Malarial fever	4,167	7.46	111	2.43	1,948	45.57	150	4.76	6,376	9.40
Organic disease of the heart	3,626	7.39	123	2.69	115	2.69	56	1.78	3,920	5.77
Arthritis and gout	3,286	5.88	220	4.82	191	4.47	77	2.45	3,774	5.57
Scarlet fever	1,966	3.52	167	3.66	73	1.71	29	.92	2,235	3.29
Alcoholism	1,487	2.66	77	1.69	400	9.36	37	1.17	2,001	2.95
Broncho-pneumonia	1,468	2.63	197	4.32	70	1.64	47	1.49	1,782	2.63

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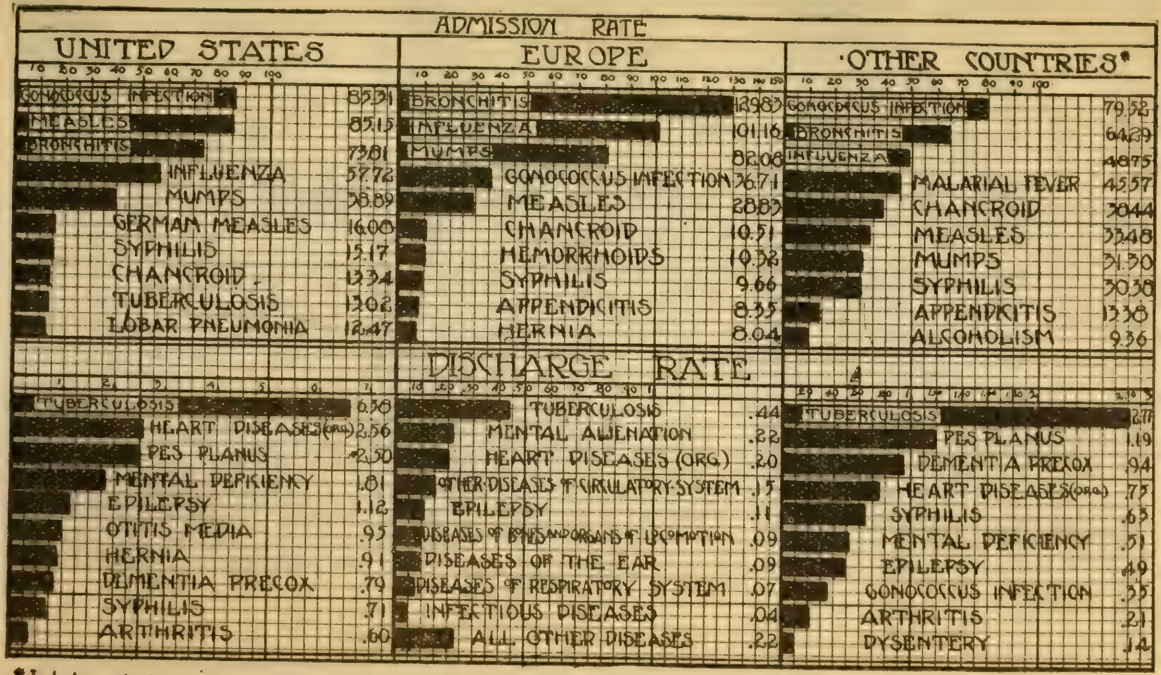
[1] Including native troops.

ADMISSION AND DISCHARGE RATE FOR TEN LEADING DISEASES
FOR UNITED STATES, EUROPE, AND OTHER COUNTRIES—AMERICAN AND NATIVE TROOPS: FOR YEAR 1917

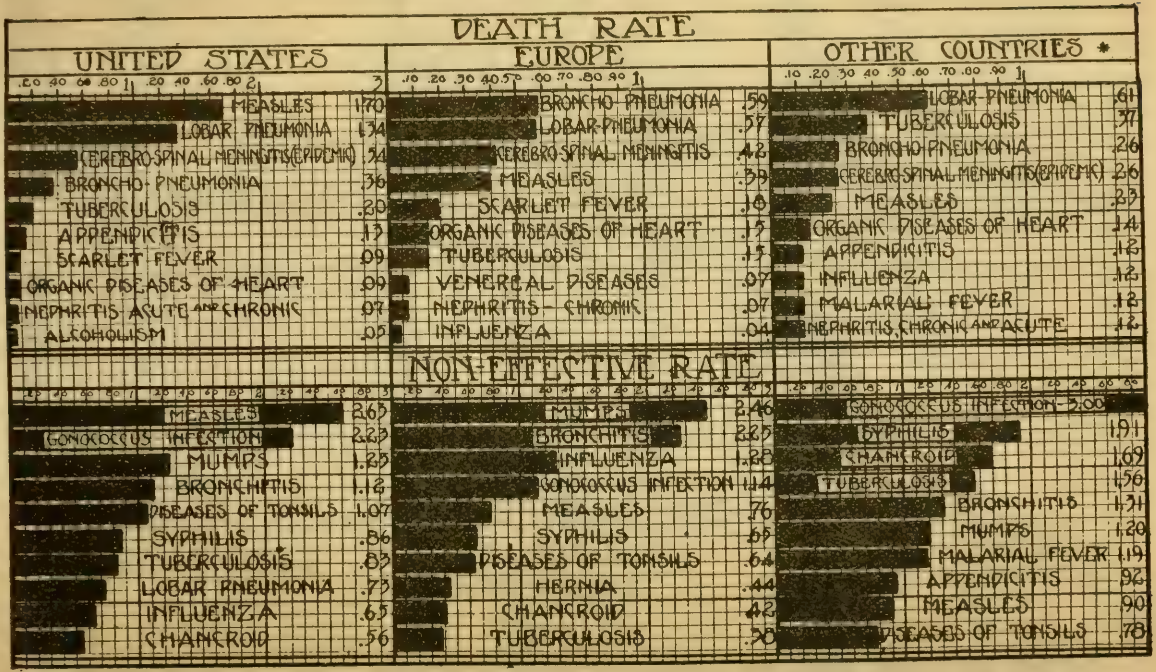


* Includes native troops

CHART NO. 45.

DEATH AND NON-EFFECTIVE RATE FOR TEN LEADING DISEASES

FOR UNITED STATES, EUROPE, AND OTHER COUNTRIES—AMERICAN AND NATIVE TROOPS:—FOR YEAR 1917



* Includes native troops

CHART No. 48

TABLE NO. 64.—*Discharges for Army,*[1] *1917, at home and abroad, selected diseases.*

Diseases.	United States.		Europe.		Other countries.		Officers.		Total.	
	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.
Total discharges from disease	15.882	28.43	74	1.62	562	13.15	68	2.13	16,586	24.44
Gonococcus infection	328	.59			15	.35			343	.51
Measles	20	.04			1	.02			21	.03
Disease of tonsils	15	.03							15	.02
Bronchitis	54	.10	1	.02	2	.05			57	.08
Influenza	3	.01	1	.02	2	.05			6	.01
Mumps					1	.02			1	.00
Typhoid vaccination and vaccinia	3	.00							3	.00
German measles										
Syphilis	399	.71	1	.02	27	.63	3	.10	430	.63
Disease of pharynx	2	.00							2	.00
Chancroid	13	.02			1	.02			14	.02
Tuberculosis	3,676	6.58	20	.44	116	2.71	11	.35	3,823	5.63
Lobar pneumonia	26	.05			1	.02			27	.04
Otitis media	528	.95	3	.07	5	.12			536	.79
Appendicitis	32	.06			3	.07	1	.00	36	.05
Hernia	510	.91			7	.16	4	.13	521	.77
Rheumatic fever	79	.14	1	.02					80	.12
Pes planus	1,394	2.50			51	1.19			1,445	2.13
Disease of larynx	5	.01					1	.03	6	.01
Malarial fever	7	.01			1	.02			8	.01
Organic disease of the heart	1,433	2.56	9	.20	32	.75	5	.16	1,479	2.19
Arthritis and gout	337	.60	2	.04	9	.21	1	.03	349	.51
Scarlet fever	3	.01							3	.00
Alcoholism	136	.24			5	.12			141	.21
Broncho-pneumonia	4	.01							4	.00

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[1] Including native troops.

TABLE NO. 65.—*Deaths for Army,*[1] *1917, at home and abroad, selected diseases.*

Diseases.	United States.		Europe.		Other countries.		Officers.		Total.	
	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.	Number.	Ratio per 1,000 mean strength.
Total deaths from disease	2,984	5.34	137	3.00	145	3.39	64	2.03	3,330	4.91
Gonococcus infection	3	.01			1	.02			4	.01
Measles	947	1.70	18	.39	10	.23			975	1.44
Disease of tonsils	18	.03							18	.03
Bronchitis	4	.01			1	.02			5	.01
Influenza	7	.01	2	.04	5	.12			14	.02
Mumps	8	.01	1	.01					9	.01
Typhoid vaccination and vaccinia										
German measles	17	.03							17	.02
Syphilis	20	.04	3	.07	1	.02	1	.03	25	.04
Disease of pharynx	5	.01					1	.03	6	.01
Chancroid	1	.00							1	.00
Tuberculosis	114	.20	7	.16	16	.37	4	.12	141	.20
Lobar pneumonia	747	1.34	26	.57	26	.61	16	.51	815	1.20
Otitis media	14	.03			1	.02			15	.02
Appendicitis	74	.13	1	.02	5	.12	3	.10	83	.12
Hernia	5	.01			2	.02			7	.01
Rheumatic fever	5	.01							5	.01
Pes planus										
Disease of larynx										
Malarial fever	5	.01			5	.12			10	.02
Organic disease of the heart	47	.09	7	.15	6	.14	2	.06	62	.09
Arthritis and gout	2	.00							2	.00
Scarlet fever	48	.09	8	.18	3	.07			59	.09
Alcoholism	29	.05	1	.02	4	.09	1	.03	35	.05
Broncho-pneumonia	202	.36	27	.59	11	.26	1	.03	241	.36

[1] Including native troops.

TABLE No. 66.—*Admissions, discharges, deaths, noneffective rates from disease for enlisted men in United States and American troops in other countries for the years 1917 and 1916.*

	Admissions.		Discharges.		Deaths.		Noneffective (total days lost).	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1917.								
United States	495,431	886.81	15,882	28.43	2,984	5.34	4,528,612	22.21
Other countries	68,213	842.38	596	7.36	273	3.37	712,242	24.10
1916.								
United States	37,797	608.11	911	14.66	173	2.78	575,654	25.30
Other countries	23,621	637.87	519	14.02	85	2.30	274,030	20.22

TABLE No. 67.—*Admissions, officers (total), 1917, diseases.*

	Number.	Per cent.
Total admissions from disease	12,782	100.00
Bronchitis	1,705	13.34
Influenza	1,562	12.22
Tonsils, diseases of	1,250	9.78
Pharynx, diseases of	462	3.61
Measles	447	3.50
Typhoid vaccination and vaccinia	370	2.89
Larynx, diseases of	305	2.39
Appendicitis	254	1.99
German measles	224	1.75
Hemorrhoids	173	1.35
Mumps	161	1.26
Malarial fever	150	1.17
Hernia	144	1.13
Tuberculosis	143	1.12
Gonococcus infection	138	1.08
Conjunctivitis	126	.99
Lobar pneumonia	118	.92
Neurasthenia	110	.86
Otitis media	103	.81
Pleurisy	98	.77
Syphilis	68	.53
Broncho-pneumonia	47	.37
Alcoholism	37	.29
Chancroid	13	.10
Digestive system, other diseases of	1,639	12.82
Nasal fossae, diseases of	489	3.83
Congenital malformations and ill-defined diseases	468	3.66
Skin and cellular tissue, diseases of	464	3.63
Infectious diseases, other	340	2.66
Circulatory system, other diseases of	241	1.89
General diseases, other	199	1.56
Genito-urinary system and annexa, diseases of	181	1.42
Bones and organs of locomotion, diseases of	179	1.40
Nervous system, other diseases of	163	1.28
Eye and annexa, other diseases of	82	.64
Mental alienation	73	.57
Respiratory system, other diseases of	40	.31
Ear, other diseases of	16	.13

TABLE No. 68.—*Deaths, officers (total), 1917, diseases.*

	Number.	Per cent.
Total deaths from disease	64	100.00
Lobar pneumonia	16	25.00
Meningitis, cerebrospinal (epidemic)	6	9.37
Tuberculosis	4	6.25
Apoplexy	4	6.25
Nephritis, acute and chronic	3	4.69
Appendicitis	3	4.69
Acute abscess	3	4.69
Organic diseases of the heart	2	3.13
Septicemia	2	3.13
Broncho-pneumonia	1	1.56
Venereal diseases (all)	1	1.56
Digestive system, other diseases of	6	9.37
Respiratory system, other diseases of	2	3.13
Circulatory system, other diseases of	2	3.13
Infectious diseases, other	2	3.13
All other diseases	7	10.94

TABLE NO. 69.—*Discharges, officers (total), 1917, diseases.*

	In line of duty.		Not in line of duty.		Total.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Total discharges from disease	33	100.00	35	100.00	68	100.00
Tuberculosis	6	18.18	5	14.29	11	16.18
Organic diseases of the heart	1	3.03	4	11.43	5	7.35
Neurasthenia	2	6.06	3	8.57	5	7.35
Hernia	2	6.06	2	5.71	4	5.88
Nephritis	4	12.12	....	....	4	5.88
Syphilis	....	....	3	8.57	3	4.41
Mental alienation	3	9.09	5	14.29	8	11.76
Digestive system, other diseases of	3	9.09	1	2.86	4	5.88
Circulatory system, other diseases of	....	....	3	8.57	3	4.41
Ear, diseases of	1	3.03	2	5.71	3	4.41
Eye and annexa, diseases of	1	3.03	1	2.86	2	2.94
Bones and organs of locomotion, diseases of	....	....	2	5.71	2	2.94
All other diseases	10	30.30	4	11.43	14	20.59

TABLE NO. 70.—*Noneffective total days, officers (total), 1917, diseases.*

	Number.	Per cent.
Total days lost from disease	112,217	100.00
Bronchitis	8,904	7.93
Influenza	6,947	6.19
Intestines, diseases of	6,638	5.92
Tonsils, diseases of	6,473	5.77
Tuberculosis	6,327	5.64
Appendicitis	4,659	4.15
Measles	3,691	3.29
Hernia	3,433	3.06
Neurasthenia	3,128	2.79
Lobar pneumonia	2,386	2.13
Gonococcus infection	2,172	1.94
Stomach diseases (cancer excepted)	2,101	1.87
Pharynx, diseases of	1,949	1.74
Mumps	1,797	1.60
Hemorrhoids	1,751	1.56
Larynx, diseases of	1,626	1.45
Rheumatic fever	1,575	1.40
German measles	1,538	1.37
Arthritis and gout	1,477	1.32
Syphilis	1,469	1.31
Nephritis, acute and chronic	1,405	1.25
Malarial fever	1,298	1.16
Organic diseases of the heart	1,254	1.12
Otitis media	1,215	1.08
Pleurisy	1,177	1.05
Dysentery	1,015	.90
Broncho-pneumonia	780	.70
Chancroid	168	.15
Skin and cellular tissue, diseases of	4,179	3.72
Infectious diseases, others	3,885	3.46
Congenital malformation and ill-defined diseases	3,497	3.12
Nasal fossæ, diseases of	3,112	2.77
Circulatory system, other diseases of	3,082	2.75
Nervous system, other diseases of	2,803	2.50
Digestive system, other diseases of	2,585	2.30
General diseases	2,338	2.08
Bones and organs of locomotion, other diseases of	2,157	1.92
Eyes and their annexa, other diseases of	1,945	1.73
Genito-urinary system, other diseases of	1,832	1.63
Mental alienation	1,755	1.56
Respiratory system, other diseases of	521	.46
Ear, other diseases of	173	.15

TABLE No. 71.—*Admissions, enlisted men, United States, 1917, diseases.*

	Number.	Per cent.
Total admissions from diseases	495,431	100.00
Gonococcus infection	47,660	9.62
Measles	47,573	9.60
Tonsils, diseases of	43,021	8.68
Bronchitis	41,233	8.32
Influenza	32,248	6.51
Mumps	21,725	4.39
Typhoid vaccination and vaccinia	18,419	3.72
German measles	8,982	1.81
Syphilis	8,474	1.71
Pharynx, diseases of	8,096	1.63
Chancroid	7,452	1.50
Tuberculosis	7,274	1.47
Lobar penumonia	6,964	1.41
Otitis media	5,876	1.19
Appendicitis	5,448	1.10
Hernia	5,038	1.02
Rheumatic fever	4,819	.97
Pes planus	4,707	.95
Larynx, diseases of	4,633	.94
Malarial fever	4,167	.84
Organic diseases of the heart	3,626	.73
Arthritis and gout	3,286	.66
Scarlet fever	1,966	.40
Alcoholism	1,487	.30
Broncho-pneumonia	1,468	.30
Digestive system, other diseases of	37,328	7.53
Congenital malformations and ill-defined diseases	25,059	5.06
Skin and cellular tissue, diseases of	20,121	4.06
Circulatory system, diseases of	10,404	2.10
Nasal fossæ, diseases of	9,476	1.91
Bones and organs of locomotion, other diseases of	7,600	1.53
Eyes and their annexa, other diseases of	7,426	1.50
Nervous system, other diseases of	6,579	1.33
Genito-urinary system and annexa, other diseases of	6,231	1.26
Infectious diseases, others	5,802	1.17
General diseases	5,022	1.01
Respiratory system, other diseases of	4,241	.86
Mental alienation	3,790	.77
Ear, other diseases of	710	.14

TABLE No. 72.—*Deaths, enlisted men, United States, 1917, diseases.*

	Number.	Per cent.
Total deaths from diseases	2,984	100.00
Measles	947	31.74
Lobar pneumonia	747	25.03
Cerebrospinal meningitis (epidemic)	302	10.12
Broncho-pneumonia	202	6.77
Tuberculosis	114	3.82
Appendicitis	74	2.48
Scarlet fever	48	1.61
Organic diseases of the heart	47	1.58
Nephritis, acute and chronic	41	1.37
Alcoholism	29	.97
Venereal diseases (all)	24	.80
Meningitis, simple	23	.77
Septicemia	23	.77
Typhoid fever	18	.60
Tonsils, diseases of	18	.60
German measles	17	.57
Diabetes millitus	16	.54
Otitis media	14	.47
Cancer and other malignant tumors	13	.44
Apoplexy	13	.44
Peritonitis, acute and chronic	12	.40
Diphtheria and results	12	.40
Pleurisy	11	.37
Mumps	8	.27
Influenza	7	.23
Mastoiditis	6	.20
Epilepsy	6	.20
Digestive system, diseases of	52	1.74
Infectious diseases, others	24	.80
Circulatory system, diseases of	20	.67
Skin and cellular tissue, diseases of	19	.64
General diseases	16	.54

TABLE No. 72.—*Deaths, enlisted men, United States, 1917, diseases*—Continued.

	Number.	Per cent.
Respiratory system, diseases of	14	.47
Congenital malformations and ill-defined diseases	13	.44
Nervous system, diseases of	9	.30
Mental alienation	7	.23
Pharynx, diseases of	5	.17
Genito-urinary system and annexa, diseases of	5	.17
Sinusitis	4	.13
Eye and annexa, diseases of	3	.10
Bones and the organs of locomotion, diseases of	1	.03

TABLE No. 73.—*Discharges, enlisted men, United States, 1917, diseases.*

	In line of duty.		Not in line of duty.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total discharges from disease	1,108	100.00	14,774	100.00	15,882	100.00
Tuberculosis	349	31.50	3,327	22.52	3,676	23.15
Organic diseases of the heart	85	7.67	1,348	9.12	1,433	9.02
Pes planus	18	1.62	1,376	9.31	1,394	8.78
Mental deficiency	5	.45	1,007	6.82	1,012	6.37
Epilepsy	7	.63	621	4.20	628	3.95
Otitis media	27	2.44	501	3.39	528	3.32
Hernia	35	3.16	475	3.22	510	3.21
Dementia precox	9	.81	433	2.93	442	2.78
Syphilis	2	.18	397	2.69	399	2.51
Arthritis	47	4.24	290	1.96	337	2.12
Gonococcus infection	1	.09	327	2.21	328	2.07
Thyroid glands, disease of	4	.36	203	1.37	207	1.30
Trachoma	3	.27	194	1.31	197	1.24
Alcoholism	......	......	136	.92	136	.86
Neurasthenia	10	.90	90	.61	100	.63
Nephritis, chronic and acute	31	2.80	64	.43	95	.60
Rheumatic fever	35	3.16	44	.30	79	.50
Pleurisy	25	2.26	38	.26	63	.40
Bronchitis	17	1.53	37	.25	54	.34
Measles	20	1.80	......	......	20	.13
Dysentery	7	.63	11	.07	18	.11
Cerebrospinal meningitis (epidemic)	12	1.08	2	.01	14	.0
Chancroid	......	......	13	.09	13	.0
Bones and organs of locomotion, diseases of	35	3.16	708	4.79	743	4.6
Mental alienation	13	1.17	564	3.82	577	3.6
Eye, diseases of	31	2.80	455	3.08	486	3.0
Nervous system, diseases of	42	3.79	367	2.48	409	2.5
Digestive system, other diseases of	48	4.33	340	2.30	388	2.4
Circulatory system, other diseases of	23	2.08	334	2.26	357	2.2
General diseases	38	3.43	298	2.02	336	2.1
Genito-urinary system and annexa, diseases of	16	1.44	227	1.54	243	1.5
Respiratory system, other diseases of	33	2.98	207	1.40	240	1.5
Skin and cellular tissue, diseases of	30	2.71	119	.81	149	.9
Congenital malformations and ill-defined diseases	8	.72	81	.55	89	.5
Ear, other diseases of	4	.36	62	.42	66	.4
Nasal fossae, other diseases of	6	.54	51	.35	57	.3
Infectious diseases, others	18	1.62	19	.13	37	.2
Diseases of throat	14	1.26	8	.05	22	.1

TABLE No. 74.—*Noneffective (total days) United States enlisted men, 1917, diseases*

	Number.	Per cent
Total days lost from disease	4,528,612	100.
Measles	536,400	11.
Gonococcus infection	454,703	10.
Mumps	254,523	5.
Bronchitis	229,199	5.
Tonsils, diseases of	217,249	4.
Syphilis (all)	175,816	3.
Tuberculosis	168,462	3.
Lobar pneumonia	149,798	3.
Influenza	133,297	2.
Chancroid	113,686	2.
Intestinal diseases	107,500	2.
Hernia	100,206	2.
Appendicitis	98,851	2.

TABLE No. 74.—*Noneffective (total days) United States enlisted men, 1917, diseases*—Con.

	Number.	Per cent.
German measles	74,762	1.65
Rheumatic fever	71,385	1.58
Otitis media	64,829	1.43
Typhoid vaccination and vaccinia	60,456	1.33
Pes Planus	59,940	1.32
Organic diseases of the heart	57,906	1.28
Arthritis and gout	56,941	1.26
Scarlet fever	45,714	1.01
Stomach diseases (cancer excepted)	38,035	.84
Hemorrhoids	35,104	.78
Pleurisy	35,100	.77
Pharynx, diseases of	34,303	.76
Malaria (all)	31,054	.69
Epilepsy	28,260	.62
Furuncle	27,858	.62
Acute abscess	27,624	.61
Larynx, diseases of	25,609	.57
Broncho-pneumonia	24,194	.53
Conjunctivitis	23,210	.51
Cellulitis	22,867	.50
Meningitis, cerebrospinal (epidemic)	22,428	.50
Diphtheria and results	20,319	.45
Nephritis, acute and chronic	12,903	.28
Neurasthenia	12,702	.28
Dysentery (all)	10,408	.23
Typhoid fever	9,414	.21
Alcoholism	9,150	.20
Malformations and ill defined diseases	160,702	3.55
Circulatory system, diseases of, other	89,954	1.99
Skin and cellular tissue, other diseases of	82,831	1.83
Organs of locomotion, other diseases of	81,596	1.80
Mental alienation	74,768	1.65
Genito-urinary system, diseases of	64,267	1.42
General diseases	59,943	1.32
Nervous system, other diseases of	49,881	1.10
Nasal fossæ, diseases of	46,743	1.03
Digestive system, other diseases of	39,742	.88
Infectious diseases, other	37,888	.84
Eyes and their annexa, other diseases of	35,901	.79
Respiratory system, other diseases of	15,185	.34
Ear, other diseases of	7,046	.16

TABLE No. 75.—*Admissions and deaths, enlisted men in the United States, for selected infectious diseases for the years 1917 and 1916.*

	Lobar pneumonia.		Broncho-pneumonia.		Measles, uncomplicated.		Measles with lobar pneumonia.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Admissions:								
1917	6,964	12.47	1,468	2.63	44,158	79.04	703	1.26
1916	159	2.56	37	.60	(1)	(1)	(1)	(1)
Deaths:								
1917	747	1.34	202	.36	20	.04	266	.48
1916	20	.32	7	.11	(2)	(2)	(2)	(2)

	Measles with broncho-pneumonia.		Measles with complications other than pneumonia.		Cerebrospinal meningitis.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Admissions:								
1917	1,372	2.46	1,340	2.40	971	1.74	56,976	101.99
1916	(1)	(1)	(1)	(1)	18	.29	1,460	23.49
Deaths:								
1917	622	1.11	39	.07	302	.54	2,198	3.93
1916	(2)	(2)	(2)	(2)	9	.14	45	.72

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[1] Total admissions for measles in 1916, 1,246; ratio, 20.05.
[2] Total deaths from measles in 1916, 9; ratio, 0.14.

TABLE No. 76.—*Admissions, enlisted men in Europe, 1917, diseases.*

	Number.	Per cent.
Total admission for disease	33,972	100.00
Bronchitis	5,927	17.45
Influenza	4,618	13.59
Mumps	3,747	11.03
Gonococcus infection	1,676	4.93
Tonsils, diseases of	1,648	4.85
Measles	1,316	3.87
Pharynx, diseases of	529	1.56
Chancroid	480	1.41
Hemorrhoids	471	1.39
Larynx, diseases of	448	1.32
Syphilis	441	1.30
Appendicitis	381	1.12
Hernia	367	1.08
Rheumatic fever	366	1.08
Otitis media	359	1.06
Pleurisy	349	1.03
Lobar pneumonia	335	.99
Arthritis and gout	220	.65
Broncho-pneumonia	197	.58
Tuberculosis	175	.52
Scarlet fever	167	.49
German measles	163	.48
Trench foot	120	.35
Alcoholism	77	.23
Digestive system, other diseases of	2,624	7.72
Skin and cellular tissue, diseases of	1,453	4.28
Congenital malformations and ill-defined diseases	1,420	4.18
Bones and organs of locomotion, diseases of	745	2.19
Nasal fossæ, diseases of	570	1.68
Infectious diseases, other	499	1.47
Circulatory system, other diseases of	476	1.40
Genito-urinary system and annexa	383	1.13
Eye and annexa, diseases of	365	1.07
Nervous system, diseases of	327	.96
General diseases	298	.88
Respiratory system, other diseases of	112	.33
Mental alienation	83	.24
Ear, other diseases of	40	.12

TABLE No. 77.—*Deaths, enlisted men in Europe, 1917, diseases.*

	Number.	Per cent.
Total deaths from diseases	137	100.00
Broncho-pneumonia	27	19.71
Lobar pneumonia	26	18.98
Meningitis, cerebrospinal (epidemic)	19	13.87
Measles	18	13.14
Scarlet fever	8	5.84
Organic diseases of the heart	7	5.11
Tuberculosis	7	5.11
Venereal diseases (all)	3	2.19
Nephritis, chronic	3	2.19
Influenza	2	1.46
Pleurisy	2	1.46
Infectious diseases, other	4	2.92
Digestive system, other diseases of	3	2.19
All other diseases	8	5.84

TABLE NO. 78.—*Discharges, enlisted men in Europe, 1917, diseases.*

	In line of duty.		Not in line of duty.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total discharges from disease	19	100	55	100	74	100.00
Tuberculosis	4	21.05	16	29.09	20	27.03
Mental alienation	1	5.26	9	16.36	10	13.51
Heart disease	3	15.79	6	10.91	9	12.16
Epilepsy			5	9.09	5	6.76
Diseases of circulatory system, other	2	10.53	5	9.09	7	9.46
General diseases	3	15.79	4	7.27	7	9.46
Diseases of bones and organs of locomotion			4	7.27	4	5.41
Diseases of ear	2	10.53	2	3.64	4	5.41
Respiratory system, diseases of	2	10.53	1	1.82	3	4.05
Infectious diseases	2	10.53			2	2.70
All other diseases			3	5.45	3	4.05

TABLE NO. 79.—*Noneffective, total days, enlisted men in Europe, 1917, diseases.*

	Number.	Per cent.
Total days lost by disease	302,120	100.00
Mumps	40,994	13.57
Bronchitis	37,412	12.38
Influenza	21,379	7.08
Gonococcus infection	19,017	6.29
Measles	12,676	4.20
Syphilis	10,767	3.56
Tonsils, diseases of	10,701	3.54
Intestines, diseases of	7,895	2.61
Hernia	7,402	2.45
Chancroid	7,057	2.34
Tuberculosis	6,265	2.07
Appendicitis	6,129	2.03
Lobar pneumonia	5,262	1.74
Hemorrhoids	4,709	1.56
Arthritis and gout	4,469	1.48
Otitis media	4,191	1.39
Rheumatic fever	3,939	1.30
Broncho-pneumonia	3,728	1.23
Pes planus	3,718	1.23
Pleurisy	3,681	1.22
Acute abscess	3,230	1.07
Scarlet fever	2,816	.93
Stomach diseases (cancer excepted)	2,650	.88
Pharynx, diseases of	2,545	.84
Larynx, diseases of	2,530	.84
Organic diseases of the heart	2,252	.75
German measles	1,645	.54
Conjunctivitis	1,571	.52
Epilepsy	1,315	.44
Cerebrospinal meningitis (epidemic)	1,283	.42
Skin and cellular tissue, diseases of	10,055	3.33
Congenital malformations and ill-defined diseases	9,823	3.25
Circulatory system, other diseases of	6,307	2.09
Infectious diseases, other	5,250	1.74
Bones and organs of locomotion, diseases of	4,630	1.53
Genito-urinary system, diseases of	4,454	1.47
Nervous system, diseases of	3,812	1.26
Mental alienation	3,074	1.02
General diseases, other	2,761	.91
Digestive system, other diseases of	2,647	.88
Nasal fossæ, diseases of	2,473	.82
Eyes and their annexa, diseases of	2,146	.71
Respiratory system, diseases of	995	.33
Ear, diseases of	465	.15

TABLE No. 80.—*Admissions, 1917, from disease, United States enlisted men and native troops in Panama, Philippines, Mexico, Hawaii, Porto Rico, transports, China.*

	Number.	Per cent.
Total admissions from disease	38,706	100.00
Gonococcus infection	3,399	8.78
Bronchitis	2,748	7.10
Influenza	2,084	5.38
Malarial fever	1,948	5.03
Tonsils, diseases of	1,922	4.97
Chancroid	1,643	4.24
Measles	1,431	3.70
Mumps	1,338	3.46
Syphilis	1,318	3.41
Typhoid vaccination and vaccinia	694	1.79
Appendicitis	572	1.48
Pharynx, diseases of	549	1.42
Alcoholism	400	1.03
German measles	363	.94
Tuberculosis	336	.87
Hemorrhoids	313	.81
Conjunctivitis	309	.80
Otitis media	264	.68
Lobar pneumonia	263	.68
Hernia	227	.59
Pleurisy	186	.48
Larynx, diseases of	160	.41
Neurasthenia	118	.30
Broncho-pneumonia	70	.18
Digestive system, other diseases of	5,199	13.43
Skin and cellular tissue, diseases of	2,723	7.03
Congenital malformation and ill-defined diseases	1,788	4.62
Infectious diseases, other	1,605	4.15
Circulatory system, other diseases of	844	2.18
Nasal fossæ, diseases of	828	2.14
Bones and organs of locomotion, diseases of	799	2.06
Genito-urinary system and annexa	633	1.64
General diseases, other	604	1.56
Nervous system, other diseases of	377	.97
Eye and annexa, other diseases of	254	.66
Mental alienation	203	.52
Respiratory system, other diseases of	97	.25
Ear, other diseases of	97	.25

TABLE No. 81.—*Deaths, 1917, from disease, United States enlisted men and native troops in Panama, Philippines, Mexico, Hawaii, Porto Rico, transports, China.*

	Number.	Per cent.
Total deaths from disease	145	100.00
Lobar pneumonia	26	17.93
Tuberculosis	16	11.03
Broncho-pneumonia	11	7.59
Meningitis, cerebrospinal (epidemic)	11	7.59
Measles	10	6.90
Organic diseases of the heart	6	4.14
Appendicitis	5	3.45
Influenza	5	3.45
Malarial fever	5	3.45
Nephritis, acute and chronic	5	3.45
Typhoid fever	4	2.76
Alcoholism	4	2.76
Scarlet fever	3	2.07
Meningitis, simple	3	2.07
Hernia	2	1.38
Diabetes mellitus	2	1.38
Cancer and malignant tumors	2	1.38
Venereal diseases (all)	2	1.38
Skin and annexa, other diseases of	5	3.45
Circulatory system, other diseases of	4	2.76
Digestive system, other diseases of	4	2.76
Infectious diseases, other	3	2.07
All other diseases	7	4.83

TABLE No. 82.—*Discharges, 1917, from disease, United States enlisted men and native troops in Panama, Philippines, Mexico, Hawaii, Porto Rico, transports, China.*

	In line of duty.		Not in line of duty.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total discharges from disease	145	100.00	417	100.00	562	100.00
Tuberculosis	44	30.34	72	17.27	116	20.64
Pes planus	3	2.07	48	11.51	51	9.07
Dementia praecox	1	.69	39	9.35	40	7.12
Organic diseases of the heart	8	5.52	24	5.76	32	5.69
Syphilis			27	6.47	27	4.80
Mental deficiency	1	.69	21	5.04	22	3.91
Epilepsy			21	5.04	21	3.74
Gonococcus infection			15	3.60	15	2.67
Arthritis	4	2.76	5	1.20	9	1.60
Dysentery	6	4.14			6	1.07
Alcoholism			5	1.20	5	.89
Digestive system, diseases of	12	8.28	18	4.32	30	5.34
Genito-urinary system and annexa, diseases of	10	6.90	19	4.56	29	5.16
Nervous system, other diseases of	10	6.90	16	3.84	26	4.63
Mental alienation			24	5.76	24	4.27
Diseases of eye	8	5.52	16	3.84	24	4.27
Bones and organs of locomotion, diseases of	5	3.45	16	3.84	21	3.74
Respiratory system, diseases of	4	2.76	10	2.40	14	2.49
Infectious diseases, other	12	8.28			12	2.14
Circulatory system, other diseases of	4	2.76	6	1.44	10	1.78
Diseases of ear	2	1.38	5	1.20	7	1.25
General diseases	11	7.59	10	2.40	21	3.74

TABLE No. 83.—*Noneffective, total days, 1917, from disease, United States enlisted men and native troops in Panama, Philippines, Mexico, Hawaii, Porto Rico, transports, China.*

	Number.	Per cent.
Total days lost from disease	453,260	100.00
Gonococcus infection	46,832	10.33
Syphilis	29,876	6.59
Chancroid	26,388	5.82
Tuberculosis	24,329	5.37
Bronchitis	20,411	4.50
Mumps	18,716	4.13
Malarial fevers	18,532	4.09
Intestines, diseases of	17,992	3.97
Appendicitis	14,361	3.17
Measles	14,027	3.09
Tonsils, diseases of	12,156	2.68
Influenza	9,367	2.07
Pes planus	6,946	1.53
Hernia	6,569	1.45
Stomach, diseases of (except cancer)	5,443	1.20
Lobar pneumonia	5,195	1.15
Dysentery	4,684	1.03
Arthritis and gout	4,051	.89
Hemorrhoids	3,648	.80
Organic diseases of the heart	3,587	.79
Neurasthenia	3,490	.77
Nephritis, acute and chronic	3,160	.70
Otitis media	2,940	.65
Typhoid fever	2,854	.63
Conjunctivitis	2,544	.56
Alcoholism	2,388	.53
Pleurisy	2,219	.49
Broncho-pnuemonia	1,237	.27
kin and cellular tissue, diseases of	25,089	5.54
nfectious diseases, other	18,349	4.05
Malformations and ill-defined diseases	15,630	3.45
irculatory system, diseases of	13,385	2.95
Mental alienation	12,997	2.87
enito-urinary system, diseases of	9,117	2.01
ervous system, diseases of	8,061	1.78
rgans of locomotion, diseases of	7,859	1.73
Digestive system, diseases of	7,619	1.68
eneral diseases, other	5,648	1.25
asal fossae, diseases of	4,696	1.04
ves and annexa, diseases of	4,037	.89
hroat, other diseases of	3,412	.75
espiratory system, other diseases of	2,615	.58
ar, other diseases of	804	.18

E. SPECIAL DISEASES IN THE ARMY.

I. MEASLES.

1. GENERAL.

Measles is the commonest of the infectious diseases that originate in Army camps. During 1917 there were in the American Army in America and Europe 48,889 admissions to sick report on account of measles. For comparison with the other leading diseases (excepting venereal) it may be noted that there were 44,669 admissions on account of diseases of the tonsils, 47,160 on account of bronchitis, 36,866 on account of influenza, 25,472 on account of mumps, and 28,135 on account of various minor diseases of the intestines. These figures bring out forcibly the fact that to-day the prevalent diseases for recently made and recently mobilized soldiers in the third decade of life are such as involve the respiratory tract.

Map showing the distribution of population of the United States by States. Grades as follows: 1. 0–10 per square mile. 2. 11–45 per square mile. 3. 46–100 per square mile. 4. 101+ per square mile.

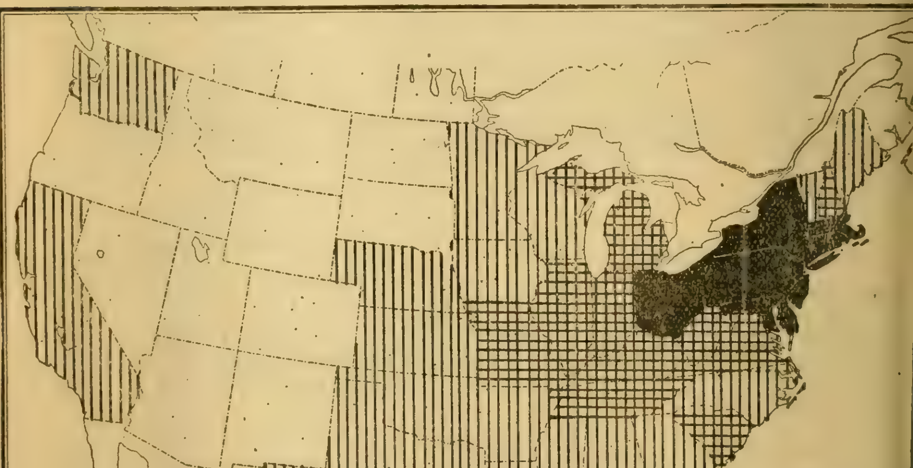

CHART NO. 47.

Measles is doubtless induced by a microorganism, though it has never been isolated. One attack in general gives immunity. With measles is frequently confounded "German measles," but that there is no relation between the two is indicated by the fact that an attack of either disease gives no immunity from the other. In cities measles is so widespread in its distribution that practically every child suffers an attack at or before his early school years. Consequently city children grow up immune to measles. In sparsely settled areas, on the other hand, measles is not universal and many grow to adult life without having become immunized to the disease.

That measles is a disease of childhood is shown by the census returns of mortality.[1] About 88 per cent of deaths from measles occur under 5 years of age and 93 per cent under 10 years. This is not merely because the disease is less fatal in later years, but because immunity has been acquired by the older part of the population through its antecedent infection. Measles ordinarily fails to affect persons much older than 10 years, because such persons have already had measles and so are immune from further attacks. Thus it comes about that in civil life at any year of life, 20 to 30, only about 1 death in 1,000 occurs from measles.

Map showing distribution of admissions to measles, by States of nativity, of enlisted men, charted in four grades. The darker areas indicate greatest resistance to (least incidence of) the disease. The order of States, together with the limits of percentage of incidence of the disease represented by each grade of shading, is as follows: 1. 0–2 per 1,000 male inhabitants, ages 20–29. 2. 2.1–10 per 1,000 male inhabitants, ages 20–29. 3. 10.1–20 per 1,000 male inhabitants, ages 20–29. 4 German measles.

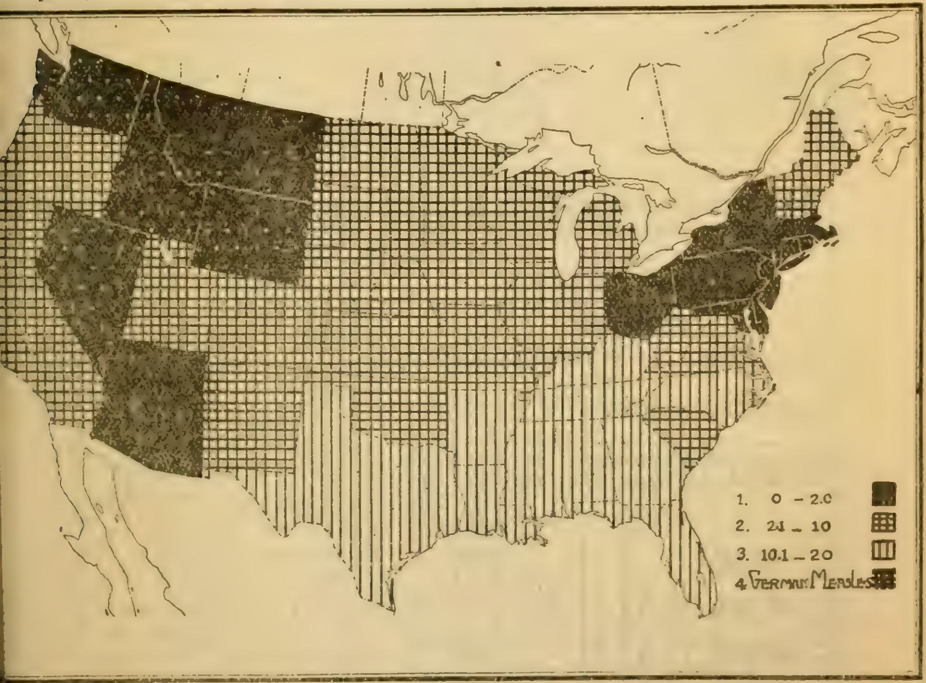

CHART No. 48.

Now the death rate from measles (we have no satisfactory data on morbidity) varies with the density of the population, or with the proportion of the population that lives in cities. This relation is well brought out in Table 84, which gives the distribution of deaths from measles in civil life by age groups of two States (Rhode Island and Connecticut), that are prevailingly urban, and of four States (Kansas, Kentucky, Maine, and Virginia), that are prevailingly rural. It is clear at a glance that in the urban States the deaths occur early, nearly all under 10 years of age, while in Kansas 21 per cent and in Virginia one-third of all deaths from measles are at an age above 10 years.

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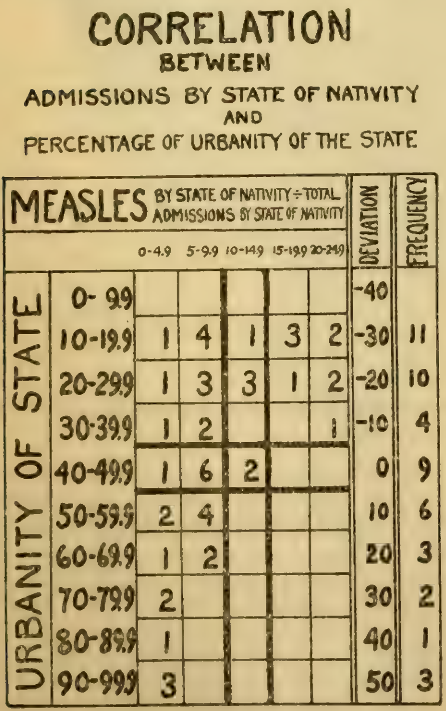
[1] U. S. Bureau of the Census: "Mortality statistics," 1915, 16th Ann. Rept., Washington, Government Printing Office.

TABLE NO. 84.—*Comparative distributions of deaths from measles by age groups in urban and rural States, "Mortality statistics," 1915.*

Urban States.	Total deaths, measles.	Under 1 year.	1 year.	2 years.	3 years.	4 years.	5 to 9 years.	10 to 19 years.	20 to 29 years.	30 to 39 years.	40 to 49 years.	50 to 59 years.	60 to 69 years.	70 to 79 years.	Per cent of deaths over 10 years.
Rhode Island	60	19	21	12	3	1	3	....	....	....	....	....	....	....	0.0
Connecticut	61	16	26	7	3	2	3	2	1	1	....	....	....	....	6.7
Kansas	73	17	12	10	5	8	6	4	2	3	2	2	1	1	20.6
Kentucky	85	18	19	11	2	5	5	9	6	2	1	5	2	....	29.4
Maine	18	2	7	2	1	1	3	....	....	....	1	....	....	1	11.1
Virginia	58	10	6	13	2	3	5	11	4	1	....	2	1	....	32 7

The same general result is obtained when we compare the rank of measles as a cause of death in various sections of the country with the density of population in those sections. This is brought out in Table 85 which shows that the death rate for measles, almost exclusively juvenile, is almost twice as high in cities as in the rural part of the registration area of the United States; or, to be exact, as 5.2 is to 2.8 per thousand. For greater New York City the rate is 8.7; for Manhattan Borough, the most densely populated city of the Western Hemisphere, 12.4 per 1,000 of all deaths are deaths from measles. In other boroughs of New York the proportion of deaths from measles varies with the population. This is roughly so with other cities of the country, though there are doubtless other factors at work. The reason for this relation is, the denser the population the more measles and therefore the more deaths from measles. What is true of deaths is probably true of morbidity. Chart 50 shows that the number of cases of measles per 100,000 of the population under 10 years is less in Philadelphia than in New York.

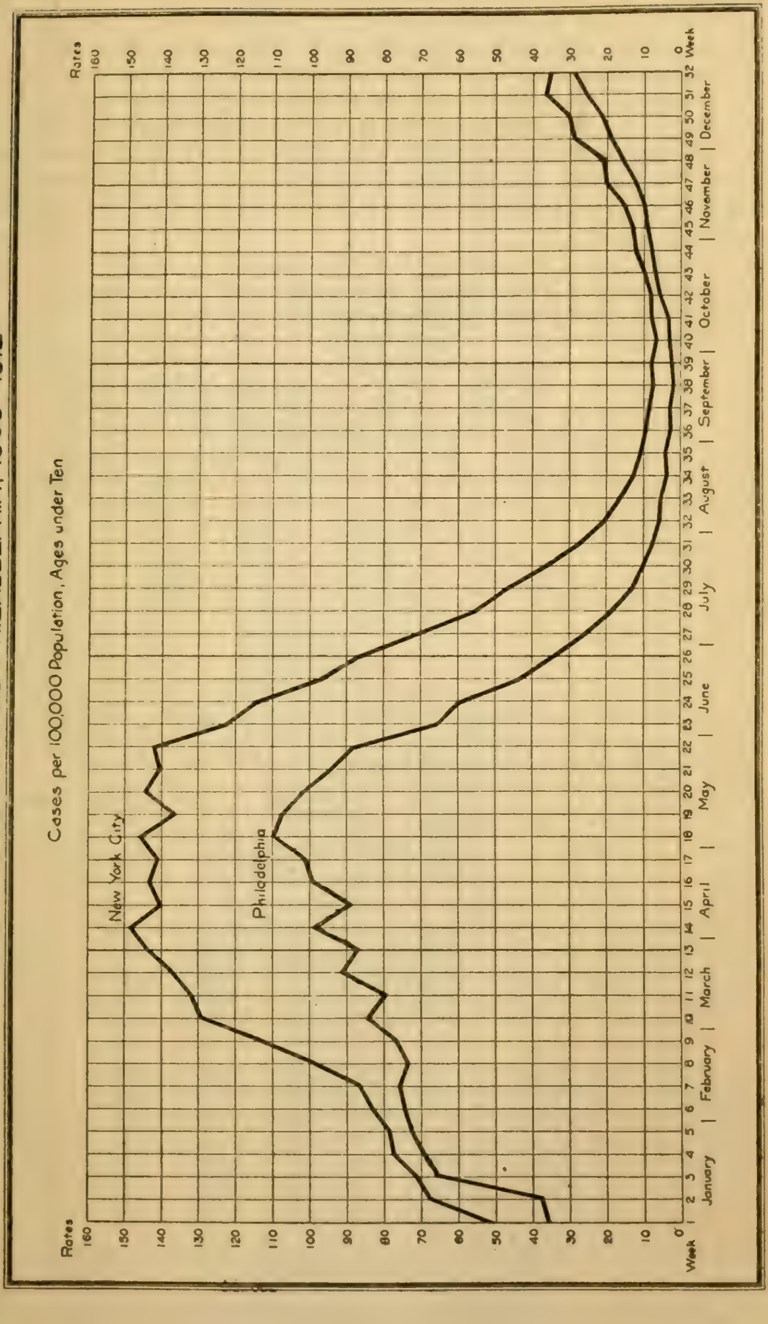


CORRELATION
BETWEEN
ADMISSIONS BY STATE OF NATIVITY
AND
PERCENTAGE OF URBANITY OF THE STATE

URBANITY OF STATE	MEASLES BY STATE OF NATIVITY ÷ TOTAL ADMISSIONS BY STATE OF NATIVITY 0-4.9	5-9.9	10-14.9	15-19.9	20-24.9	DEVIATION	FREQUENCY
0-9.9						-40	
10-19.9	1	4	1	3	2	-30	11
20-29.9	1	3	3	1	2	-20	10
30-39.9	1	2			1	-10	4
40-49.9	1	6	2			0	9
50-59.9	2	4				10	6
60-69.9	1	2				20	3
70-79.9	2					30	2
80-89.9	1					40	1
90-99.9	3					50	3

CHART NO. 49.

Again, if the States of the registration area of the United States be arranged in rank in respect to amount of urban population (Table 86)



AVERAGE WEEKLY CASE RATES FROM MEASLES
NEW YORK CITY AND PHILADELPHIA, 1906–1912

CHART NO. 50.

it appears that the proportion of all deaths that are due to measles diminishes, on the whole, with the percentage of urban population; while the average age at death from measles increases, on the whole, with the percentage of rural population. Of course, there are fluctuations in the series, as for example California; but this is a State of great cities and also of great farming areas. So, also, Missouri, while prevailingly rural, is elevated to an unduly high place in the scale of urbanity owing to the two great cities that lie on its borders; consequently it has an unduly high average age of death from measles though a fairly high proportion of the deaths of the State are due to measles.

TABLE NO. 85.—*Comparative frequency of deaths from measles in densely and sparsely populated States and cities, males, United States census, mortality statistics, 1915.*

Deaths in—	Total deaths all causes, white and colored.	Frequency of deaths from measles.	Per 1,000 of deaths from measles.
Cities of registration States	409,862	2,134	5.2
Rural part of registration States	356,769	1,005	2.8
Registration cities	474,412	2,520	5.3
Greater New York City	76,241	662	8.7
Manhattan Borough	36,176	447	12.4
Queens Borough	4,915	22	4.5
Chicago	34,894	264	7.6
Philadelphia	26,291	190	7.2
Boston	12,020	41	3.4
Baltimore	10,068	20	2.0
Cleveland, Ohio	8,808	72	8.2
New Orleans	7,752	3	3.9
Fall River, Mass	2,020	18	9.0
Cambridge, Mass	1,461	6	4.1

TABLE NO. 86.—*Measles, civil life.—Proportion of each State that is urban or rural in relation to incidence of deaths from measles and average age at death from measles, mortality statistics, 1915, United States census.*

Rank in urban population.	States.	Population,[1] total, 1915.	Urban.	Rural.	Percentage, urban.	Percentage, rural.	Measles, per cent of all deaths.	Average age at death from measles.
1	Rhode Island	603	489	113	812	188	0.673	2.53
2	Massachusetts	3,662	2,864	799	782	218	.511	3.15
3	New York	10,087	7,700	2,387	763	237	.604	3.04
4	New Jersey	2,882	1,874	1,008	650	350	.565	2.44
5	Connecticut	1,224	843	381	688	312	.334	3.20
6	California	2,848	1,629	1,219	571	429	.398	6.42
7	Ohio	5,089	2,466	2,623	485	575	.331	4.94
8	Pennsylvania	8,384	4,030	4,354	480	520	.491	2.45
9	Maryland	1,352	646	706	477	523	.150	4.12
10	Michigan	3,015	1,200	1,816	398	602	.257	3.85
11	Colorado	936	352	584	376	624	.198	3.71
12	Missouri	3,392	1,252	2,140	370	630	.378	7.78
13	Wisconsin	2,473	849	1,624	343	657	.199	4.48
14	Minnesota	2,247	751	1,496	334	666	.382	5.61
15	Indiana	2,798	923	1,875	330	670	.195	6.68
16	Maine	767	177	590	231	769	.150	9.20
17	Virginia	2,171	451	1,729	208	792	.189	9.95
18	Kansas	1,807	355	1,452	196	804	.401	9.62
19	Kentucky	2,365	430	1,935	181	819	.341	11.00

[1] Last 3 figures omitted.

Finally, we may resort to the mathematical theory of chance and plot the "correlation table" showing the relation between the proportion of men in the Army born in any State who were admitted to sick report for measles on the one hand, and the urbanity of their native States on the other. Such a correlation table is shown in Chart 49. Calculating the degree of correlation we find it to be -80 per cent, a high correlation, as correlations go, but inverse (as the minus sign signifies), meaning that the more urban the native State the less susceptible to measles its native born sons in the Army.

All of these tables then point to the same conclusion: in a more densely populated State a larger proportion of the population has had measles and is immune; in a less densely populated State a much smaller proportion has had measles, the rest of the population remains susceptible.

Now, we find that in the Army the natives of different States differed greatly in their susceptibility to measles. If, on one map of the United States the relative density of the population of each State be shown, and on the other the immunity from measles during 1917 by the soldiers in the Army from the different States, then this result appears: The soldiers who were born in the most densely populated States showed the greatest immunity to measles (Charts 47 and 48).

One apparent discrepancy, however, lies prominent on the map. The group of Northwestern States which are States of low urbanity are also States whose soldier sons have low incidence of measles. This matter deserves to be specially considered. The soldiers from these Northwestern States were gathered at Camp Lewis, Wash. The general health of the camp remained good, except for an outbreak of "German measles." By December this disease had reached epidemic proportions, and 1,000 cases were reported sick during that month. Meanwhile there was little plain measles. But the story is not complete without encroaching on the year 1918. As the epidemic of German measles died away, true measles became commoner and rose to about 200 admissions per month. Indeed, for a time in the spring of 1918, Camp Lewis had more true measles than any other camp in the country save one: and that one, Camp Cody, also drew from a rural area. The significance of the apparent substitution for true measles of German measles at Camp Lewis in the early winter of 1917–18 remains a problem for the epidemiologist.

To summarize, the high coefficient of correlation between, and the agreement of maps of distribution of, immunity and density indicate that early acquisition of immunity through crowding is the efficient and the only important factor determining variations in the rate of measles in camps. This factor probably determines 95 per cent of the result.

TABLE No. 87.—*Admissions, measles, by color and complications. United States enlisted men.*

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Measles uncomplicated	43,076	78.96	1,082	82.28	44,158	79.04
Measles, lobar pneumonia	680	1.25	23	1.75	703	1.26
Measles, broncho-pneumonia	1,354	2.48	18	1.37	1,372	2.46
Measles, other complications	1,318	2.42	22	1.67	1,340	2.40
Total	46,428	85.11	1,145	87.07	47,573	85.15

2. MEASLES IN RESPECT TO RACE.

It is well known that in certain parts of the globe, like Polynesia, there are races very susceptible to measles and suffering a heavy mortality from it. Is there any difference in this regard between the whites and negroes in the Army? In the Civil War the ratio of total admission during the war on account of measles to mean strength of the Army was, for whites, 145 per 1,000 of strength, and for colored troops, 134 per 1,000. Thus the colored troops appeared to be the less susceptible.

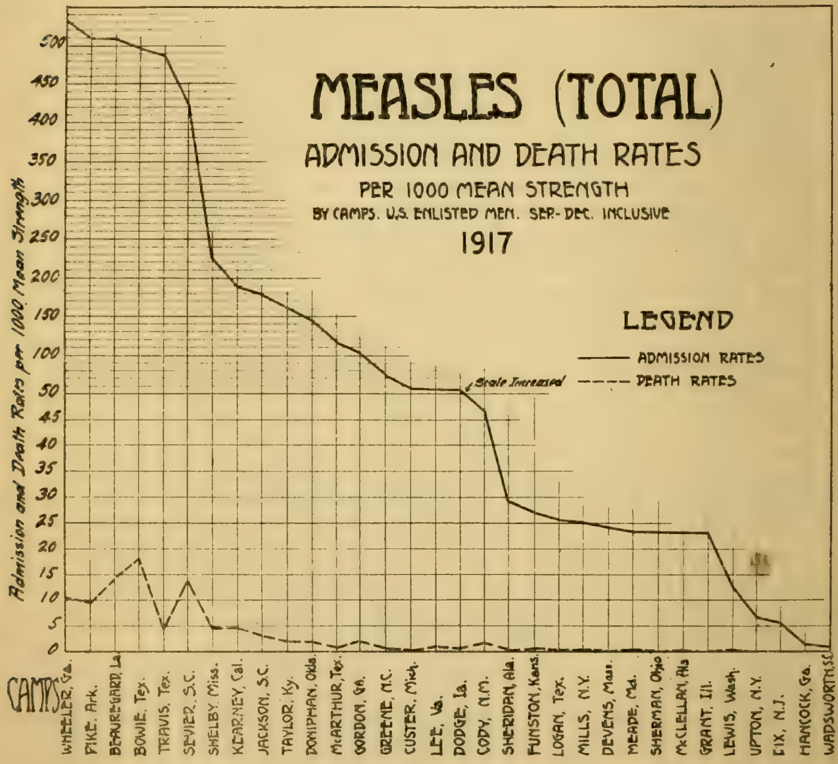


CHART No. 51.

The relations between the races in susceptibility to measles in 1917 is given in Table 87. This table shows that the mean annual rat of admission for measles per 1,000 men is almost the same for white and colored troops, though slightly greater for the latter. Th deaths are too few in either case to make a significant comparison.

3. MEASLES, BY CAMPS.

A brief review of facts given in Chapter C, II, is, on account o the importance of the subject, warranted here.

Of all camps, Wheeler, Ga., had the highest mean annual admis sion rate from measles, namely, 534 per 1,000 men. The epidem iological factors which are responsible for this high rate are plain First, the troops came from Alabama, Florida and Georgia, sparsel settled States. Second, there was a huddling together of men on account of inadequate clothing and heating facilities and on account of cold weather.

The next most affected camp was Pike, Ark., which drew from a southern territory that is only 20 per cent urban. The mean annual rate for measles here was 511 per 1,000 men. There was no crowding here as at Camp Wheeler, but the men lived in barracks and segregation was difficult. The next highest admission rate, 509, is found at Beauregard, La. Here were National Guard troops from nearly the same territory as supplied Camp Pike; the measles was most frequent among the drafted men. Next came Camp Bowie, Tex., with a rate of 499. It is probable that this included some cases of German measles. The soldiers came from Texas and Oklahoma and they were overcrowded in the tents. The soldiers at Camp Travis came also from Oklahoma and Texas; the rate of measles at this camp was 469. Camps Lewis and Cody, both drawing from an extremely rural territory, had each a low morbidity rate (13 and 47, respectively); but this seems to have been compensated for by the highest rates of any camp for German measles (115 and 176, respectively). In Camp Wadsworth, S. C., and other camps occupied by city troops, measles was almost absent.

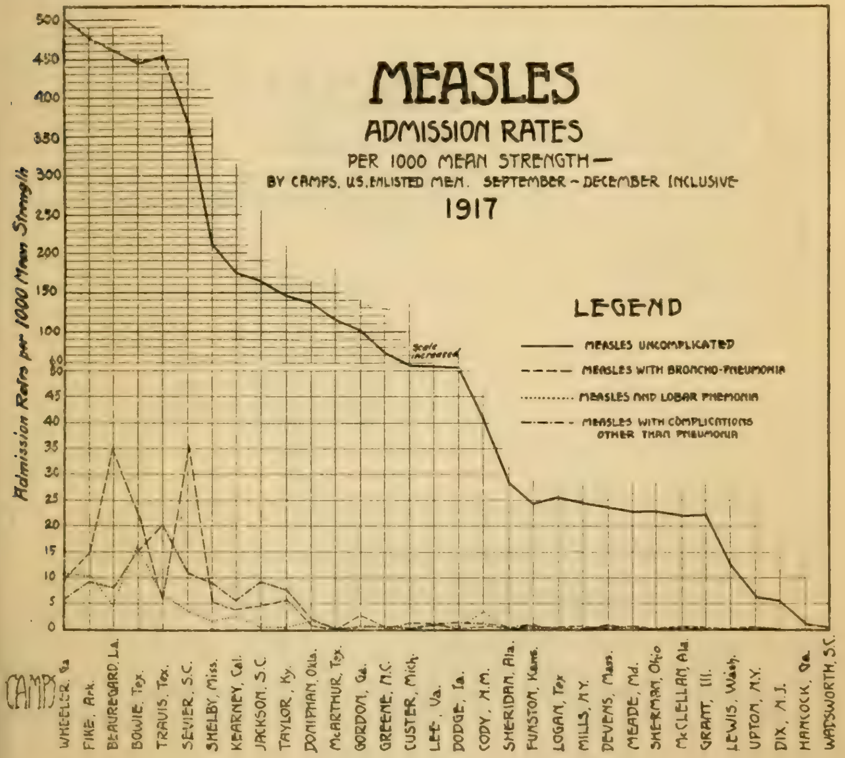


CHART NO. 52.

In the worst afflicted camps, measles paved the way for certain complications that were much more serious than the primary disease.

Thus in Camps Bowie, Beauregard, and Sevier measles was followed in many cases by pneumonia of a very fatal type. On the other hand, at Camp MacArthur, Tex., where the morbidity rate for measles was about 24 per cent that of Camp Bowie, Tex., the morbidity from the complicating pneumonia was only 2.1 per cent that of Bowie. But then the troops at Camp MacArthur were from Michigan and Wisconsin, populous States, and at Custer there was only 1 case of pneumonia following 318 cases of measles; there were, however, a number of cases of streptococcus pleurisy following measles.

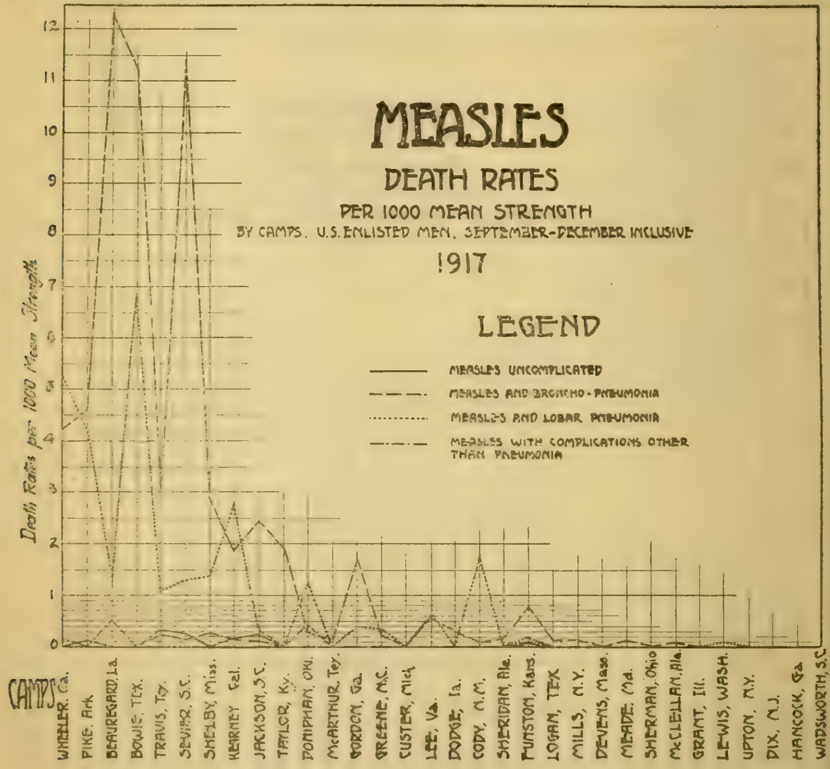


CHART No. 53.

The variations in the frequency with which pneumonia follows measles was partly dependent upon crowding at the hospitals. For where the pressure on hospitals to receive new patients was great, patients convalescing from measles were discharged before fully recovered. Thus a high rate of measles in a camp caused a disproportionally high morbidity rate of pneumonia.

4. COMPLICATIONS OF MEASLES.

Measles proved to be the most important of all diseases in the Army of the United States during 1917 because of the complications that accompanied or followed it. There are on our records 3,421 cases of measles with complications. The most important of these in order of frequency are:

TABLE No. 88.—*Complications of measles.*

	Number of cases.	Recovered.	Died.	Remaining.
Broncho-pneumonia	1,531	627	544	360
Lobar pneumonia	621	233	222	166
Otitis media	557	410	2	145
Broncho-pneumonia, otitis media	76	28	7	41
Broncho-pneumonia-pleurisy suppurative	72	8	45	19
Lobar pneumonia-pleurisy suppurative	52	8	23	21
Lobar pneumonia-otitis media	37	24	6	7
Pleurisy fibrinous	33	29		4
Otitis media-broncho pneumonia	33	19	2	12
Otitis media-mastoiditis	25	13		12
Mastoiditis	25	6		19
Pleurisy suppurative	11	6	2	3

This table gives a sufficiently vivid picture of the grave menace to effectiveness and life that an epidemic of measles brings to the Army and warrants all possible preventive and epidemilogical-prophylactic measures. Measles offers favorable conditions for the development of the pneumococcus and opens the doors, as it were, to the streptococcus. The latter, lodging in inaccessible points, starts centers of proliferation especially in the middle ear and in the communicating mastoid sinus, from which more rarely the meninges become infected. Also the streptococcus may develop in the lungs and pleura, inducing conditions under which a large percentage of the patients die.

5. EPIDEMILOGICAL METHODS.

In some camps a rapid examination of incoming men was made at the railroad station and those with suspicious symptoms of the nasopharynx or with skin erythemas were not permitted to go to the barracks. At the physical examination a more complete investigation was made for acute cases. Quarantine became operative in some camps. Where a command was known to be infected (as at Camp Kearney, Cal.) daily examinations of the entire command were made by medical officers, throats sprayed and precautions taken to provide the best of ventilation and greatest feasible separation of men at night. The cubicle system was installed in some barracks to prevent droplet infection. Special regulations were enforced against emitting discharges of nose and throat upon the ground. Dust aggravated symptoms and dust storms were followed by an increased number of men coming to sick report for pneumonia, so that the practice of spraying roads with oil was introduced in some camps of the Southwest, and with apparently good results.

TABLE No. 89.—*Measles, complications. enlisted men in United States. 1917.*

Complications.	Number of cases.	Recovered.	Died.	Remaining.
Endocarditis, acute	1		1	
Endocarditis, acute: pericarditis, adhesions	1	1		
Enteritis	1	1		
Hemothorax	1	1		
Intestinal obstruction from internal causes	1	1		
Intestinal toxemia	4	3	1	
Involution melancholia	1			1
Iritis	1	1		
Keratitis, nonulcerative	2	2		
Keratitis, ulcerative	2	1		1
Lymphadenitis, abscess, all other	1		1	
Lymphadenitis, pleurisy, fibrinous	1	1		
Mastoiditis	25	6		19

TABLE No. 89.—*Measles, complications, enlisted men in the United States, 1917*—Con.

Complications.	Number of cases.	Recovered.	Died.	Remaining.
Mastoiditis; meningitis other than epidemic	1		1	
Meningitis, other than epidemic	6	1	5	
Nephritis, acute	2	1	1	
Nervous vomiting	1		1	
Neurasthenia	1	1		
Other diseases of the ear	1	1		
Otitis media	557	410	2	145
Otitis media; abscess, retropharyngeal	1	1		
Otitis media, abscess, all other	1	1		
Otitis media; arthritis	2	1	1	
Otitis media; erysipelas	2	1	1	
Otitis media; hemorrhage	1	1		
Otitis media; mastoiditis	25	13		12
Otitis media; meningitis, cerebrospinal	1		1	
Otitis media; meningitis, other than epidemic	3		3	
Otitis media; pleurisy, fibrinous	2	2		
Otitis media; pleurisy, suppurative	2			2
Otitis media; septicæmia, general	1		1	
Otitis media; sinusitis, frontal	1			1
Otitis media; sinusitis, maxillary	1			1
Otitis media; thrombosis	1		1	
Otitis media; broncho-pneumonia	33	19	2	12
Pericarditis, acute, fibrinous	1	1		
Pericarditis with effusion	1	1		
Periostitis	1	1		
Pleurisy, fibrinous	33	29		4
Pleurisy, fibrinous; pleurisy, suppurative	1			1
Pleurisy, serofibrinous	6	3	1	2
Pleurisy, serofibrinous; pleurisy, suppurative	2	1	1	
Pleurisy, suppurative	11	6	2	8
Pneumonia, lobar	621	233	222	166
Pneumonia, lobar; cardiac dilatation	1		1	
Pneumonia, lobar; mastoiditis	3		1	2
Pneumonia, lobar; meningitis cerebrospinal	1	1		
Pneumonia, lobar; meningitis other than epidemic	2		2	
Pneumonia, lobar; otitis media	37	24	6	7
Pneumonia, lobar; paralysis agitans	2		2	
Pneumonia, lobar; pericarditis, acute fibrinous	1		1	
Pneumonia, lobar; peritonitis, acute diffuse	2		2	
Pneumonia, lobar; pleurisy, fibrinous	4	1	1	2
Pneumonia, lobar; pleurisy, serofibrinous	2	1	1	
Pneumonia, lobar; pleurisy, suppurative	52	8	23	21
Pneumonia, lobar; septicæmia, general	5		5	
Pneumonia, lobar; status lymphaticus	1		1	
Pneumonia, lobar; stomach, stenosis of	1			1
Pneumonia, lobar; tuberculosis, pulmonary, acute, pneumonic	1			1
Pneumonia, lobar; broncho-pneumonia	3	1	2	
Pneumothorax	1	1		
Purpura hemorrhagica	1	1		
Rheumatic fever, acute	2			2
Sinusitis, ethmoidal	3	1		2
Sinusitis, frontal	4	2		2
Tuberculosis, pulmonary; acute miliary	1		1	
Tuberculosis, pulmonary, chronic	1			1
Visceroptosis	1	1		
Broncho-pneumonia	1,531	627	544	360
Broncho-pneumonia; meningitis carrier	1	1		
Broncho-pneumonia; dysentery	1		1	
Broncho-pneumonia; endocarditis, acute	2		2	
Broncho-pneumonia; erysipelas	1		1	
Broncho-pneumonia; hemoptysis	1		1	
Broncho-pneumonia; mastoiditis	3	1		2
Broncho-pneumonia. meningitis, cerebrospinal	1		1	
Broncho-pneumonia; meningitis other than epidemic	2		2	
Broncho-pneumonia; myocarditis	1		1	
Broncho-pneumonia; nephritis, acute	1		1	
Broncho-pneumonia; otitis media	76	28	7	41
Broncho-pneumonia; pericarditis, acute fibrinous	1		1	
Broncho-pneumonia; lymphadenitis	1	1		
Broncho-pneumonia; pleurisy, fibrinous	7	5	1	1
Broncho-pneumonia; pleurisy, serofibrinous	7		5	2
Broncho-pneumonia; pleurisy, suppurative	72	8	45	19
Broncho-pneumonia; septicæmia, general	6		6	
Broncho-pneumonia; scarlatina	2		1	1
Broncho-pneumonia; sinusitis, ethmoidal	1			1
Broncho-pneumonia; tuberculosis, pulmonary, acute broncho-pneumonic.	1			1
Broncho-pneumonia, tuberculosis, pulmonary, chronic	1			1
Muscular rheumatism	2	1	1	
Pneumonia, unclassified	1	1		
Other complications	201	174	8	19
Total	3,421	1,635	927	859

TABLE NO. 90.—*Complications with fatal cases of measles, enlisted men in United States, 1917.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Endocarditis, acute	1	Pneumonia, lobar; pleurisy, suppurative	23
Intestinal toxemia	1	Pneumonia, lobar; septicæmia, general	5
Lymphadenitis, abscess, all others	1	Pneumonia, lobar; status lymphaticus	1
Mastoiditis; meningitis, other than epidemic	1	Pneumonia, lobar; broncho-pneumonia	2
Meningitis, other than epidemic	5	Tuberculosis, pulmonary; acute, miliary	1
Nephritis, acute	1	Broncho-pneumonia	544
Nervous vomiting	1	Broncho-pneumonia; dysentery	1
Otitis media	2	Broncho-pneumonia; endocarditis, acute	
Otitis media; arthritis	1	Broncho-pneumonia; erysipelas	1
Otitis media; erysipelas	1	Broncho-pneumonia; hemoptysis	1
Otitis media; meningitis, cerebrospinal	1	Broncho-pneumonia; meningitis, cerebrospinal	1
Otitis media; meningitis, other than epidemic	3	Broncho-pneumonia; meningitis other than epidemic	2
Otitis media; septicæmia general	1	Broncho-pneumonia; myocarditis	1
Otitis media; thrombosis	1	Broncho-pneumonia; nephritis, acute	1
Otitis media; broncho-pneumonia	2	Broncho-pneumonia; otitis media	7
Pleurisy, serofibrinous	1	Broncho-pneumonia; pericarditis, acute, fibrinous	1
Pleurisy, serofibrinous, pleurisy, suppurative	1	Broncho-pneumonia, pleurisy, fibrinous.	1
Pleurisy, suppurative	2	Broncho-pneumonia; pleurisy, serofibrinous	5
Pneumonia, lobar	222	Broncho-pneumonia; pleurisy, suppurative	41
Pneumonia, lobar; cardiac dilatation	1	Broncho-pneumonia; septicæmia, general	6
Pneumonia, lobar; mastoiditis	1	Broncho-pneumonia; scarlatina	1
Pneumonia, lobar; meningitis, other than epidemic	2	Broncho-pneumonia; pleurisy, suppurative	4
Pneumonia, lobar; otitis media	6	Muscular rheumatism	1
Pneumonia, lobar; paralysis agitans	2	Other complications	8
Pneumonia, lobar; pericarditis, acute fibrinous	1		
Pneumonia, lobar; peritonitis, acute, diffuse	2	Total	927
Pneumonia, lobar; pleurisy, fibrinous	1		
Pneumonia, lobar; pleurisy, serofibrinous	1		

NOTE.—Total deaths from measles, 947. Of this number 20 deaths caused by measles uncomplicated. Total admissions for measles, 47,573.

II. THE PNEUMONIAS.

It has been well said that, as typhoid fever was the preeminent medical problem of the Spanish-American War, so pneumonia was of the present war in the winter of 1917–18. Pneumonia has, indeed, always played an important part in war. In our Civil War, there were 61,202 cases of "inflammation of the lungs" out of 5,417,360 admissions of white soldiers for disease, or 1.13 per cent of admissions. The 61,202 cases occurred during four years when the mean strength of the white troops of the Army was 468,275, giving a mean annual rate of 32.7 per 1,000 men. Moreover, there were 14,738 deaths from pneumonia among a total of 128,930 deaths from disease, or 11.42 per cent of deaths.

Our advances in the knowledge of the pneumonias have been so great that it will not be easy to compare the data of 1917 with those of 1861–1865. Nevertheless the attempt will not be without interest.

As is well known, the pneumonias may be classified in various ways. By the microorganisms involved they may be classified as pneumococcic and streptococcic pneumonias. Of the former, four different types have been isolated. Again, pneumonias may be classified anatomically into the lobar and broncho-pneumonias. Since in 1917 it was not practicable in camps to differentiate the types of pneumococcic pneumonia to study the other microorganisms involved, cases were reported as of the two anatomical types, lobar and broncho-pneumonia.

The mass statistics of the pneumonias in the total Army in the United States, 1917, are as follows:

TABLE NO. 91.—*Pneumonia, primary and secondary.*

	White (mean strength 545,518).			Colored (mean strength 13,150).			Total (558,668).		
	Admissions.	Deaths.	Case mortality.	Admissions.	Deaths.	Case mortality.	Admissions.	Deaths.	Case mortality.
Broncho-pneumonia	1,372	193	14.07	96	9	9.38	1,468	202	13.76
Lobar pneumonia	6,258	663	10.59	706	84	11.90	6,964	747	10.73
Pneumonia, unclassified	44	3	6.82	3	..	....	47	3	6.38
Measles and broncho-pneumonia	1,354	618	45.64	18	4	22.22	1,372	622	45.33
Measles and lobar pneumonia	680	263	38.68	23	3	13.04	703	266	37.84
Total primary pneumonia and pneumonia complicating measles	9,708	1,740	17.92	846	100	11.82	10,554	1,840	17.43
Total for all diseases for United States Army, 1917	481,434	2,822	.59	13,997	162	1.16	495,431	2,984	.60

From this table it appears that the total of all the various classes of pneumonia together were responsible for 2.02 per cent of total admissions for all diseases of white troops (or nearly double the proportion reported in the Civil War), 6.04 per cent were of admissions of colored troops, or, combined 2.13 per cent for all troops. Also, the pneumonias were responsible for 61.7 per cent of the deaths among all troops, the rate for white and colored being the same. The case mortality is 17.9 per 100 for white troops, or about three-quarters that of the Civil War. The case mortality for colored troops is 11.8 per 100 and for white and colored troops together 17.4 per 100.

It appears, then, that while pneumonia is relatively more important in 1917 as a cause of death than it was in 1861–1865 (becaus other diseases are less important), the case mortality for pneumoni is greatly diminished. This comparison must, however, be accepte with caution. The rates for 1917 cover only the autumn and earl winter, when pneumonia is at its height. The Civil War record covers a number of summer periods, when there is little pneumonia The two types of pneumonia that have to be considered are, as stated lobar pneumonia and broncho-pneumonia, and these may occur eithe as primary or as secondary to measles.

1. PRIMARY LOBAR PNEUMONIA.

A. GENERAL.

This was the most fatal single disease that affected our Army durin 1917, excepting only measles and its complications grouped as single cause of death. Lobar pneumonia is charged with 6,96 admissions and 747 deaths in the total Army in the United States

The course of the disease in the whole Army, United States, b months, is shown in Table 92.

TABLE No. 92. *Lobar pneumonia, by months.*

Months.	Admissions.		Deaths.	
	Cases.	Mean annual rate.	Cases.	Mean annual rate.
1917.				
September	79	1.89	5	0.12
October	626	9.63	46	.71
November	1,644	23.09	217	3.05
December	1,823	25.51	175	2.45
Total	4,172	16.72	443	1.77

As was to have been expected with a rapidly growing Army, the number of admissions and deaths from the pneumonias increased from September to December, but the increase of admissions was proportionately much faster than the increase of the Army, as is shown by the steady rise of the mean annual rate per 1,000 men. The census returns of morbidity in civil life show that December to March are the months of greatest fatality for pneumonia and bronchopneumonia. In the Army, however, the number of deaths does not increase in the last month of the year, as it did in the preceding months, due to incompleted cases.

Considering the distribution of lobar pneumonia by countries, it appears that there were 6,964 admissions in the United States, giving a mean annual rate of 12.47; and 335 in Europe, giving a rate of 7.34. The smaller rate in Europe is undoubtedly to be explained by the fact that the European troops were seasoned men, while those of the United States were mostly fresh from civil life, of all degrees of susceptibility, and placed under conditions of crowding that favored the spread of communicable diseases.

The influence of "seasoning" of the troops and of smaller posts is indicated by the fact that the 1,700 cases that occurred among troops of the Regular Army constituted a rate of 8.76, while the 1,462 cases in the National Army gave a rate of 9.17. The rate in the National Guard camps was still higher, namely, 16.12, largely due to the worse living conditions to which they were subjected. The death rate of Regulars and National Army was exactly the same, namely, 0.93, while that of the National Guard was 1.73. It is to be noted that not all of the National Guard camps contained seasoned troops, despite the experience of many of them on the Mexican border in 1916. This is partly because the National Guards received considerable fresh ncrements in the spring of 1917 and because many drafted men were ntroduced into the National Guard camps. These introduced raw recruits proved a great danger to the better seasoned troops in the camps where they were placed.

Is there any racial difference in susceptibility to lobar pneumonia, primary? In the United States the morbidity rate (admission ÷ strength) for whites was 11.47, for colored 53.69 (Table 91); and this excess of susceptibility of the colored troops held in all three armies. But whereas the colored troops of the Regulars were only three times as susceptible as the white troops of that Army, the colored troops of he National Army were eight and one-half times as susceptible as white troops. This is evidence that the members of this highly susceptible race had in the Regular Army gained relative immunity either through the elimination of the more susceptible or otherwise. As for deaths, the colored Regulars showed a death rate (3.60) that was four times that of whiteRe gulars (0.93); while of the colored command of the National Army the death rate was 9.48, or ten times that of the white command (0.93). These figures show not only that raw colored troops are less immune, but also that they are less resistant than raw white troops, and their lack of resistance to death is more pronounced than their lack of immunity. That is, they are about eight and one-half times as apt to fall sick with lobar pneumonia and the sick are about one-third more apt to die.

Map showing distribution of admissions for lobar pneumonia, by State of nativity of enlisted men. Charted in four grades. The darker areas indicate greatest resistance to (least incidence of) the disease. The order of States, together with the limits of percentage of incidence of the disease represented by each grade of shading, is as follows: 1. Below 0.34: Rhode Island, Delaware, Wyoming, New Jersey, New York, Pennsylvania, Massachusetts, Connecticut, Washington, West Virginia, Utah, North Dakota, Maine. 2. 0.39–0.34: District of Columbia, Oregon, Nevada, Idaho, Arizona, California, Michigan, Maryland, New Hampshire. 3. 1.3–0.4: Colorado, Minnesota, Ohio, South Dakota, New Mexico, Illinois, Wisconsin, Montana, Oklahoma, Utah, Indiana, North Carolina, Virginia, South Carolina, Iowa, Kansas, Missouri, Tennessee, Nebraska, Kentucky. 4. 1.4 and above: Louisiana, Arkansas, Mississippi, Texas, Alabama, Georgia, Florida.

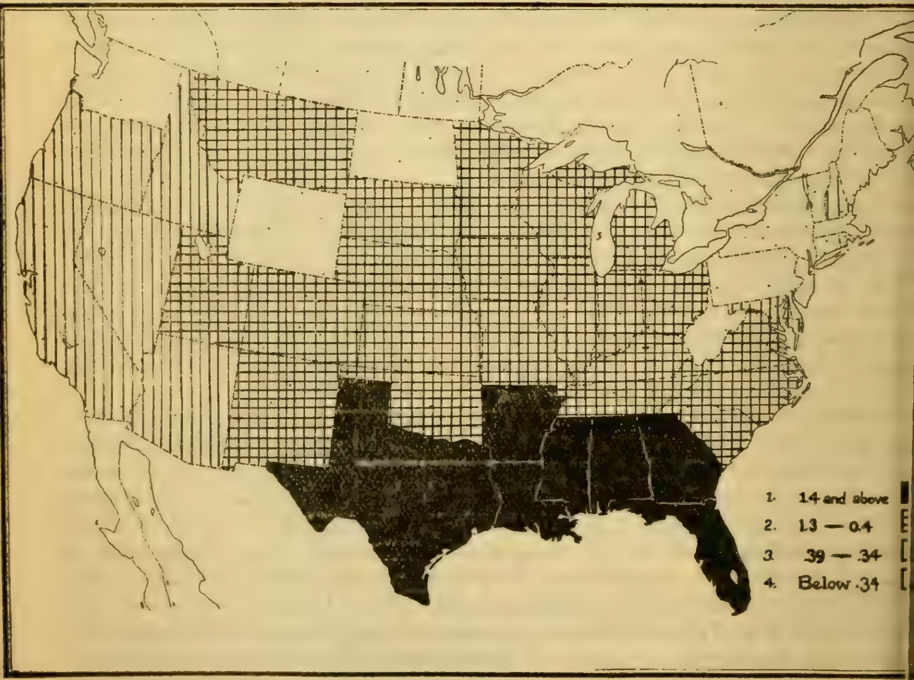
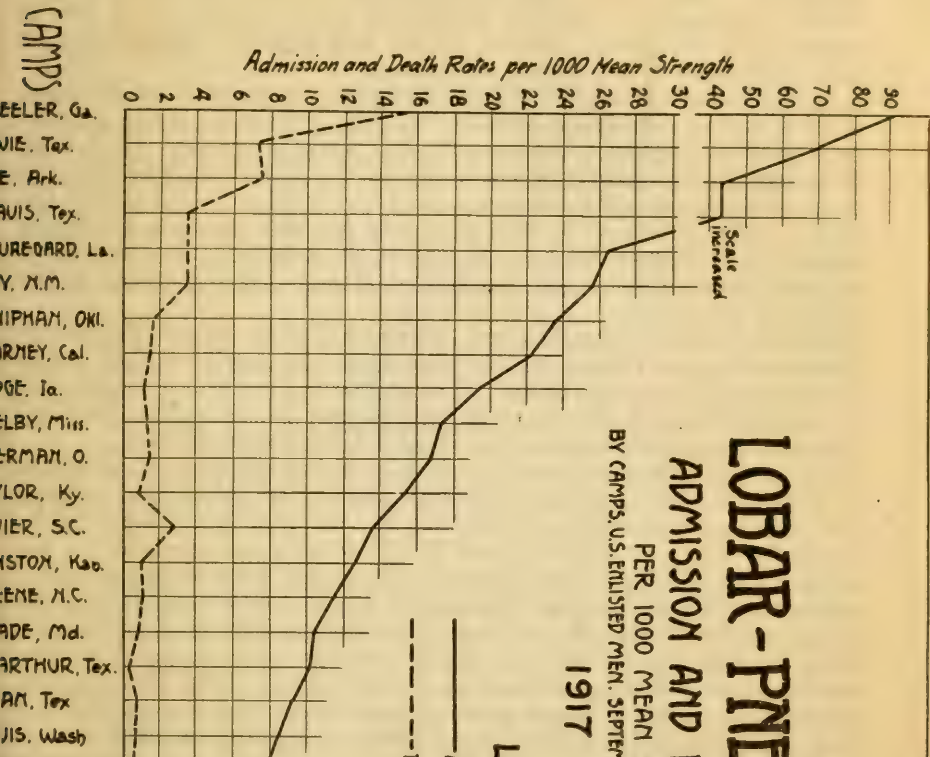


CHART No. 54.

B. LOBAR PNEUMONIA, BY STATE OF NATIVITY.

Next we have to consider the distribution of lobar pneumonia by State of nativity of the troops. As Table 60 shows, the heaviest incidence of pneumonia is found in the Gulf States and Arkansas. The next highest incidence is the middle zone of States from souther

Tennessee and Oklahoma north to Pennsylvania (and western Virginia) and the Canadian border west of the Great Lakes. But in the Pacific and Great Basin States the rate was low and still lower in the



New England and Middle States. Why this difference in amount of lobar pneumonia in enlisted men from the different States? There are various possible explanations.

1. The variation may be coincident with the density of the population of the native State or with the number of large cities that it contains. This factor undoubtedly plays a part, yet it is not the whole explanation. For the amount of lobar pneumonia is low in troops from Wyoming, Nevada, Idaho, and Arizona—States without large cities and with a sparse population.

2. The variation may be influenced by the temperature of the place of encampment during the winter months. But this is not a determining factor, for Camp Wadsworth, S. C., and Camp Sevier, S. C., both National Guard camps, had practically the same temperature; yet the morbidity rate for pneumonia of the former was 4.25; of the latter, 13.84. Also, it is clear that cold weather was not a primary cause, for at Camp Custer in the North the admission rate was 5.38; while at Camp Pike, which also housed National Army troops in the South, it was 43.77.

3. The variation may depend on conditions in camp. There was overcrowding at Travis, which drew from the territory that shows so very black upon the chart. Yet at Camp Pike, there was no important crowding in the barracks, which were also those of a National Army cantonment, and yet there was much pneumonia here.

To get the broadest possible view of the conditions of incidence of lobar pneumonia in the different sections of the Army, a chart (No. 56) has been drawn up showing the distribution of lobar pneumonia by State of nativity and State of occurrence combined, for white troops in the United States. There are 5,929 cases in troops whose nativity is known. When the States are arranged by mean January temperature of both State of nativity and State of occurrence, then we find that there were 3,344 soldiers born in warm States, who acquired lobar pneumonia in warm States; 1,315 born in cold States, who acquired lobar pneumonia in warm States; 492 soldiers born in warm States who acquired lobar pneumonia in cold States; and 750 soldiers born in cold States who acquired lobar pneumonia in cold States.

Assuming the total strength of the Army (that is, the number of men who were liable to an attack of pneumonia) at 1,325,000 men and assuming the values 1,025,000 and 300,000 as a fair approximation to a number of troops in the warmer States, and in the colder States, respectively, and having found by calculation that the number of troops born in the warmer States and the colder States are as 500,000 to 525,000, then we may calulate the ratio of the incidence of lobar pneumonia, in each of the quadrants of Chart No. 56. The results of such calculation are given in the following table:

	Number.	Cases.	Ratio.
Born in warm States and encamped in warm States	500,000	3,344	6.67
Born in cold States and encamped in warm States	525,000	1,315	2.50
Born in warm States and encamped in cold States	121,700	492	4.04
Born in cold States and encamped in cold States	178,300	750	4.21

If all these approximations are warranted then the following calculations appear to be justified. Lobar pneumonia affected troops in the following order of susceptibility:

1. Born in warm States and encamped in warm States.
2. Born in cold States and encamped in cold States.
3. Born in warm States and encamped in cold States.
4. Born in cold States and encamped in warm States.

Thus we may say, that as with broncho-pneumonia, so with lobar pneumonia, the soldiers who were born in the warmer States and encamped therein, proved far more susceptible than those born in the colder States and encamped in the warmer States. Furthermore the following difference appears: The troops born in coastal States and those held in the canps bordering on the Atlantic and Pacific Oceans, suffer less from lobar pneumonia than do those in the interior of the country. This is not due merely to the fact that the Coastal States have a denser population. West Virginia, which has a small population, nevertheless produced troops relatively immune to pneumonia. Charts and table agree in showing the heavy incidence of lobar pneumonia in troops of the Gulf States.

In general, the rate of admission on account of lobar pneumonia for all troops born in the warmer States is about 0.62 per cent, while of those born in the colder States is 0.30 per cent.

C. LOBAR PNEUMONIA, BY CAMPS.

Turning now to the camps, we find the admission and death rates to vary greatly. The highest admission rates are at Wheeler, Ga., 106.15; Bowie, Tex., 70.33; Pike, Ark., 43.77; Travis, Tex., 43.76 and Beauregard, La., 26.55. These are all camps where great epidemics, both of measles and pneumonia occurred as is discussed in the chapter on measles. On the other hand, the lowest admission rates are found at Hancock, Ga., 1.47; Devens, Mass., 2.86; Dix, N. J., 4.25; Wadsworth, S. C., 4.25; and McClellan, Ala., 4.65. Three of these are southern camps but they sheltered northern troops—Hancock, troops from Pennsylvania; Wadsworth, troops from New York; and McClelland, troops from New Jersey, Delaware, Maryland and District of Columbia. Thus it appears that, as in the case of measles, so in the case of pneumonia, troops fron the sparsely settled States, especially the southern States, were liable to lobar pneumonia while troops from the densely settled northern States were relatively immune from pneumonia.

2. PRIMARY BRONCHO-PNEUMONIA.

Next to measles and its complications, primary lobar pneumonia and cerebrospinal meningitis, primary broncho-pneumonia caused more deaths than any other camp disease. There were in the United States 1,468 admissions of enlisted men for this disease and 202 deaths. Thus the case mortality 137 per 1,000 is contrasted with the case mortality of primary lobar pneumonia, of 107 per 1,000. Similarly, broncho-pneumonia complicating measles had a case mortality of 453 per 1,000 as contrasted with the case mortality of measles complicated with lobar pneumonia of 378. Broncho-pneumonia is thus a more fatal disease than lobar pneumonia, due proba-ly to the fact that the virulent infection with streptococcus haemo-yticus tends to take the bronchial form. Measles followed by

NATIVITY

State of occurrence ↓		Fla.	Tex.	La.	Ala.	Miss.	Ga.	Calif.	S.C.	Ark.	Okla.	N.C.	Tenn.	N.Mex.	Ariz.	Va.	Ore.	Wash.	Md.	Del.	Ky.	W.Va.	N.J.	Ohio	Mo.	N.Y.
Fla.	55°	1							1				1			1		1						1		5
Tex.	50°	6	696	22	36	23	48	12	18		44	23	46	1		11	3	4	4		40	9	6	42	38	51
La.	49°		4	38	1	29				25	1	1	2											1	2	
Ala.	45°	3			46		5		1			2	3			15			9	3			7	27		1
Miss.	45°				1	10			1				2								79	11		1	8	1
Ga.	45°	249	8	12	215	13	226		15	2	3	9	17	1		2		2	2		3	1	1	5	10	13
Calif.	45°		11		3	2	1	43	1	1	5	1	6	6	4		6	4	1		11		2	5	16	8
S.C.	43°	8	2	6	2	10	2		23	6	1	40	49								1				1	37
Ark.	40°	1	2	46	24	57	1		1	46	3		4	1				1			4			13	19	1
Okla.	40°	1	1	1		1				1	5		1								1				1	
N.C.	38°	1	1	3	3	1				1		13	3			6		1	1		3	1	2	2	1	5
Tenn.	37°					2							2													
N.Mex.	35°	1	11		1	4				9	2		3	1					1		2	2		2	11	2
Ariz.	35°	3	3		48	2	8	1	1			6	3		1	2	3				3	1	1		7	6
Va.	35°		3		1	1	5	2				2	2			43	1		1		1	3	1	2	2	1
Ore.	35°									1				3344			3									
Wash.	35°		4	1			1	29		4	2						4	10			1				3	2
Md.	33°	1	1								1	1	1			1	1		4		1			1		4
Del.	33°												1						1							1
Ky.	32°			1			1	1	3	1			2			3					62	1		2	1	
W.Va.	32°																		1							
N.J.	31°	1		2		1	1	5			1		2			3	1				1	1	17	1	1	13
Ohio	30°		2		2	2	2	1		1	2	3	2			2					6	3		62	1	4
Mo.	30°		1			2				3	1		2					1			5	1				
N.Y.(L.I.)	30°		8	3	26	2	6	1	2	6		3	4			1	2	10	1		5	1	10	5	5	52
Ind.	29°								1														1	2	1	1
Pa.	27°	1											1			1		1					2			1
Kans.	27°		12	3	1	1	2	4	3	4	4	1	8	3	4		1	1	1		2		1	7	174	5
R.I.	27°		1																							
Utah	26°		5		3	1	2		1		3	1	1	1		1		1			1			1	3	
Conn.	26°																								1	
Colo.	25°		2					1			2		1			1									1	
Nev.	25°																									
Mass.	25°		2		1		1		1			1														7
Ida.	25°		1																							
Mich.	23°									1						2								2		
Ill.	22°		1	1	1	2	2						2					2	1				1	5	1	2
Neb.	20°		2	1	1				1					1							1			1	1	
Ia.	20°	1			6					1	4							2					1		5	
Wyo.	20°	1						1				1						1					1	1	2	
Me.	19°							1								2					1					
N.H.	18°																									
Vt.	17°												1										1		1	
Wis.	15°		1				1							492					1				1		1	
S.D.	15°																									
Mont.	15°																	1						2		
Minn.	10°									2		1	2								1				1	
N.D.	5°																									
D.C.		1	1		1			2			1	1				4	1	1	1		1		1	1	1	
Others								1		1						2	2	2			1	1		1		
		280	786	134	423	166	315	105	79	116	85	110	174	15	9	103	28	46	30	3	237	36	57	195	320	2

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SUM UPPER QUADRANTS 4659

Ind.	Pa.	Kans	R.I.	Utah	Conn	Colo.	Nev.	Mass	Ida	Mich	Ill.	Neb	Ia.	Wyo	Me.	NH	Vt.	Wis.	SD	Mont	Minn	ND.	D.C	Elsewhere	
					2			3			4														20
32	56	23	1		4	2	1	18	3	35	77	8	12		4	2	6	51			8	2	1	70	1599
1											5	1													111
1	3										1	1	1					1					1	6	137
24	1							2		2	2													1	146
6	23				3	1	1	10		4	7		3	1		2		1	1					10	882
7	7	9	3	6	2	9	2		1	5	13	5	8		1			5	1	3	3			14	241
1	3	2		1				2					1									1		4	203
2	2	15				1				3	13	7	12					6	1		4	2		3	289
	1	2						1		2	4				1			1						1	26
2	13	3			1			10	1		6	2	1	1	3	2		2	1	2		2	2	9	111
																		1	1						6
4	3	1						2		4	11	41	65	2		1	2	2	7	2	26	2		11	238
4	3	1	1		1			2		1	5		5					5		1	4			5	137
1	13	1	3	1	1			1		1		1	2				1						2	9	108
															1315										4
	1	1		2	1	3		1	3		3	4	4					3	1	7	4			6	105
	10							2		1	1									1				2	34
	1				1								1											1	7
30	3		1							1	21	1	1						1						136
								1																	2
4	4	4			1			1	1	3	5	3	7				1	8			1	3		10	107
3	13	1			1			1		3	2	1											1	11	132
3	1	5						1			14	1	2					2	1		5			5	56
6	11	4	1	2				7	1	6	1	4	17		3	2	1	7	4	6	9	2	1	26	274
3										2	3		1												15
	20	1									2		1											4	35
7	4	96				14		2	1	5	25	63	12					2	9	6	7			13	508
																	1							1	3
1									2	1	5	2												2	38
					3												1							1	6
2	1	5				2					1		4						1	1					25
																		1							1
1	1				6			13							3	3	2							8	50
																									1
2								1		22	1							2			1			3	37
5	5							1		2	40		4					11			1			10	100
					1			2		1	2	1													16
2						3				1	13	3	27								15	3		7	95
	1	2							1		1		1							1				1	17
	1							1							4			1							11
																1									1
	3									2						2	3							2	15
	2	1									1		1		750										10
																			1						1
													2					1		2				1	9
2					1						6		1									1		6	24
2	6				2			2			2	1	1		1						1	1	1	3	44
1	1					2		3										2						6	28
159	217	177	10	12	31	37	4	90	14	107	297	150	196	4	20	15	18	115	30	32	89	19	9	272	6201

broncho-pneumonia is, indeed, the most fatal combination of diseases known in camps.

Map showing distribution of broncho-pneumonia (primary), by State of nativity, United States enlisted men. Rate per 1,000 of the adult male civil population of each State (age 20 to 29 years), in five grades, the darkest representing heaviest incidence of broncho-pneumonia. Grades as follows: 1. 0.40: Arkansas, Louisiana, Georgia, Texas, Mississippi, Florida. 2. 0.15–0.40: Alabama, Tennessee, South Carolina, Vermont, Indiana, New Mexico, Kentucky, North Carolina, Delaware, Missouri. 3. 0.09–0.15: Colorado, Kansas, New Hampshire, Virginia, Oklahoma, California, Nebraska, Iowa, Maine, Maryland, Ohio, West Virginia, Wisconsin. 4. Below 0.09: Illinois, Michigan, New Jersey, Oregon, Rhode Island, Connecticut, Minnesota, New York, Pennsylvania, Utah, Massachusetts, Montana, Washington, South Dakota, District of Columbia. 5. Arizona, Idaho, Nevada, North Dakota, Wyoming.

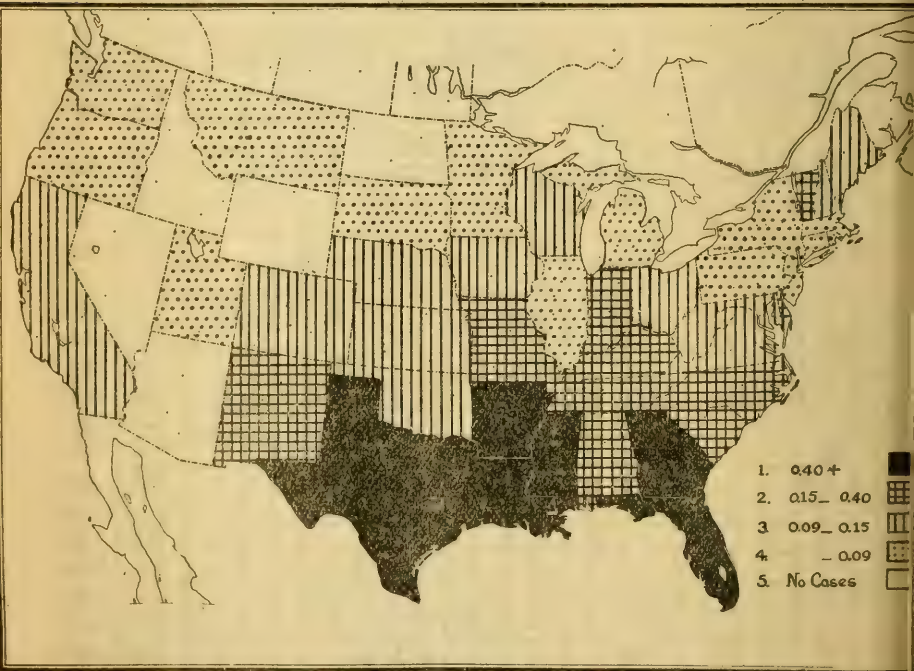


Chart No. 57.

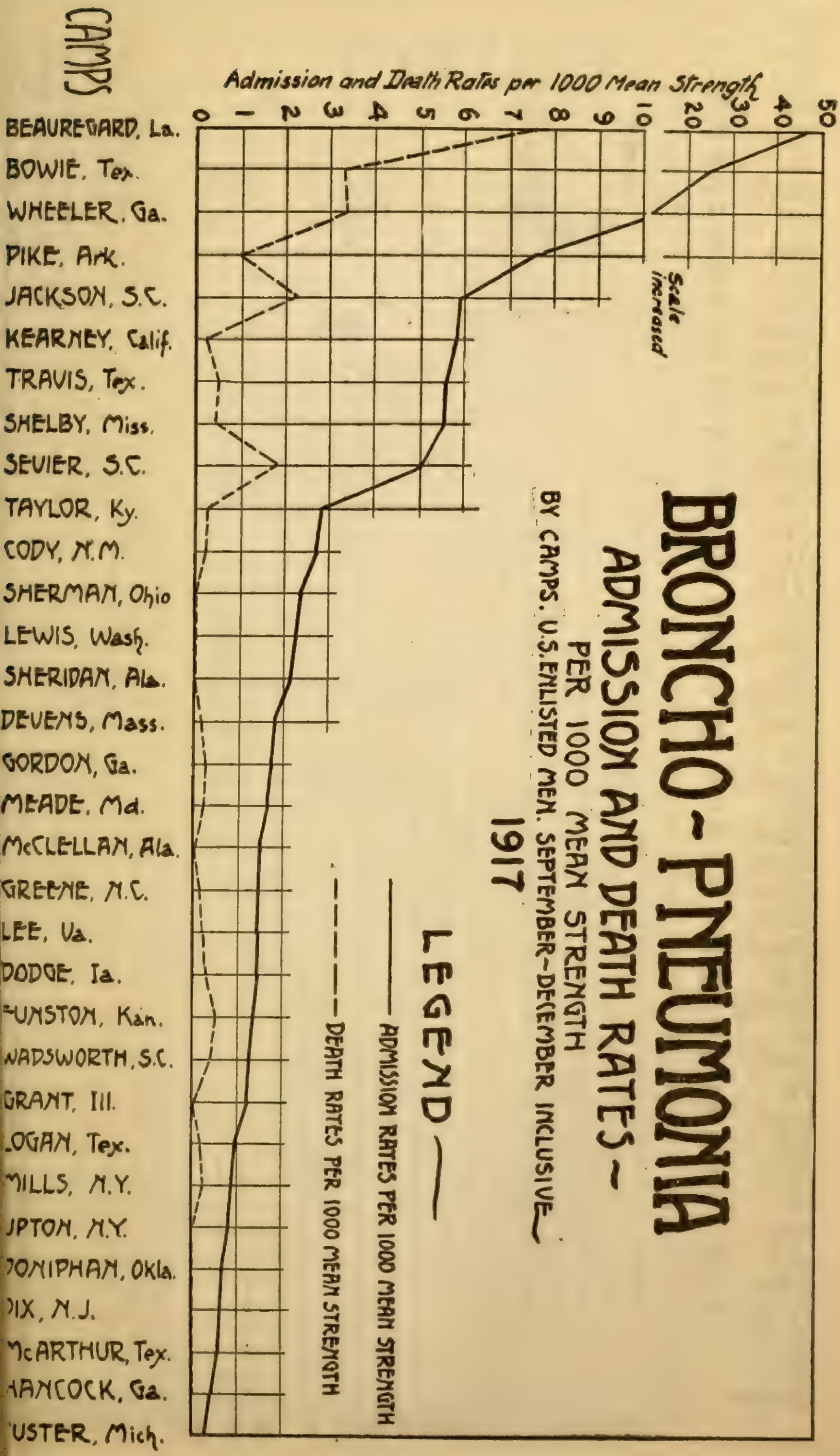
The difference in racial resistance to broncho-pneumonia is shown in the following table:

Admission rates for broncho-pneumonia.

	White.	Colored.	Total.
United States	2.51	7.30	2.63
Europe	4.05	20.75	4.32

According to this table there are relatively about three times as many colored as whites who show the symptoms of broncho-pneumonia (primary), but the case mortality of primary broncho-pneumonia is less among colored than white troops. Thus the colored troops proved to be more resistant to broncho-pneumonia than white troops are, while they are less resistant to lobar pneumonia than white troops.

The distribution of broncho-pneumonia by nativity and by State of occurrence in white troops is shown in Chart 59. There are 888 cases


BRONCHO-PNEUMONIA
ADMISSION AND DEATH RATES—
PER 1000 MEAN STRENGTH
BY CAMPS. U.S. ENLISTED MEN. SEPTEMBER–DECEMBER INCLUSIVE
1917
LEGEND—
—— ADMISSION RATES PER 1000 MEAN STRENGTH
- - - - DEATH RATES PER 1000 MEAN STRENGTH
Admission and Death Rates per 1000 Mean Strength
0
1
2
3
4
5
6
7
8
9
10
20
30
40
50
Scale increased
CAMPS
BEAUREGARD, La.
BOWIE, Tex.
WHEELER, Ga.
PIKE, Ark.
JACKSON, S.C.
KEARNEY, Calif.
TRAVIS, Tex.
SHELBY, Miss.
SEVIER, S.C.
TAYLOR, Ky.
CODY, N.M.
SHERMAN, Ohio
LEWIS, Wash.
SHERIDAN, Ala.
DEVENS, Mass.
GORDON, Ga.
MEADE, Md.
McCLELLAN, Ala.
GREENE, N.C.
LEE, Va.
DODGE, Ia.
UNSTON, Kan.
WADSWORTH, S.C.
GRANT, Ill.
OGAN, Tex.
ILLS, N.Y.
PTON, N.Y.
ONIPHAN, Okla.
IX, N.J.
cARTHUR, Tex.
ANCOCK, Ga.
USTER, Mich.

NATIVITY

State of occurrence		Fla	Tex.	La	Ala.	Miss.	Ga	Calif	S.C.	Ark	Okla	N.C.	Tenn	N.Mex	Ariz.	Va.	Ore.	Wash	Md	Del	Ky.	W.Va.	N.J.	Ohio	Mo.	N.Y.
Fla.	55°	2																							1	
Tex	50°	3	167	13	4	3	9	1	2	16	11	2	4	1		1			1		3	4		6	4	5
La	49°		3	57	3	43	2			60	2		1					1			1			2	5	
Ala.	45°			2	4					1		2	1			4			2	1			2	4		3
Miss	45°					1															18	1		1		
Ga.	45°	21	5	1	26		36		1				5			1					1	1	2			8
Calif	45°		8		1	1		18		1	1		4			1	1	3				1	1	2	4	2
S.C.	43°	3		5		4	2		9	3		21	32								1		2	1		8
Ark.	40°		1	5	7	7	1			12			3							1				4	2	1
Okla.	40°			1			1				1															
N.C.	38°											2										1		13	2	
Tenn.	37°												888													
N.Mex.	35°		2																1							
Ariz.	35°		1		7	1	4			1		1	1								1		1			
Va.	35°				1	1					1					12									1	
Ore.	35°																									
Wash.	35°		1					10		1			1				1					1		1	1	
Md.	33°												1			1			5				1			
Del.	33°																									
Ky.	32°				1		4	1	1				2								9			1		
W.Va.	32°																									
N.J.	31°											2											7			
Ohio	30°	1	1				1						1				1				1			3	1	
Mo.	30°	1		1						1							1					1			7	
N.Y.(L.I.)	30°		2	1	1	2	1		1								1	2					2		1	1
Ind.	29°																									
Pa.	27°															1										
Kans.	27°		2										1	4			1							1	13	
R.I.	27°		1			1																				
Utah	26°		1																						1	
Conn.	26°																						1			
Colo.	25°																									
Nev.	25°																									
Mass.	25°																								1	
Ida.	25°																									
Mich.	23°																							2		
Ill.	22°		1																							
Neb.	20°																									
Ia.	20°										1			1												
Wyo.	20°																								1	
Me.	19°																									
N.H.	18°												54													
Vt.	17°																			1			1			
Wis.	15°																								1	
S.D.	15°																									
Mont.	15°																									
Minn.	10°																									
N.D.	5°																									
D.C.																			2							
Others																1										
		31	196	86	55	64	61	30	14	96	17	30	57	6		22	6	6	11	3	35	10	20	41	46	

SUM 2 QUADRANTS 942

SUM UPPER QUADRANTS 1140

Ind	Pa	Kans	RI	Utah	Conn	Colo	Nev	Mass	Ida	Mich	Ill	Neb	Ia	Wyo	Me	NH	Vt	Wis	SD	Mont	Minn	ND	DC	Elsewhere	
													1												4
4	13	4		1		2		1		5	14	3	5		1	2		6		1	1			18	342
1		2																							183
	4										1													3	34
20		2								1															44
4	7	1	1			1		1					1											6	130
1	2	2	1	1		2					1	1					1	2						6	69
1	3	1				2					1														99
										3	1		1					3							52
																									3
1	2	1								1		1								1				2	28
										(252)															
	1	1				1					3	2	4					1			4			2	22
1	2										2		2					1							26
					1											1									19
		1				2				2	1	1							1					1	27
	1		1									1				1								2	15
5	1										5				1		1							1	34
																	1								15
	1															1								2	14
2		1									4							1			3				23
	1	2			1	1		2		1	1		2						1					11	51
	1														1									1	5
2	1	3				1					3	1	1					1			1			2	38
																									2
																									2
1					1																				2
																									1
1	1				2			9							2		1							7	26
										1			2											3	6
1										1	3	2						4						1	16
											1	1													2
										1	1		3					1	1		2			1	12
																									1
								1																	1
										(105)															
	3		1		2			1		2	1						2								15
																									1
																				1					1
																					1			1	4
	1														1										3
45	45	21	4	2	7	12		15		18	43	13	23		6	5	6	20	3	3	12			70	1372

of broncho-pneumonia from troops who were natives of warm States and were located in warm States. There were 252 cases from troops born in cold States and located in warm States. There were 54 cases among troops that were born in warm States and were located in cold States and 105 cases among troops born in cold States and located in cold States. Putting the total strength at 1,325,000 and making assumptions as in the case of broncho-pneumonia and by means of similar calculations, we reach the following rates of incidence per 100 men of admissions for broncho-pneumonia.

	Number.	Cases.	Ratio.
Born in warm States and encamped in warm States	500,000	888	1.78
Born in cold States and encamped in warm States	525,000	252	.48
Born in warm States and encamped in cold States	121,700	54	.44
Born in cold States and encamped in cold States	178,300	105	.59

If all these approximations are warranted, the following conclusions seem to be justified:

Broncho-pneumonia affected troops in the following order of susceptibility:
1. Born in warm States and encamped in warm States.
2. Born in cold States and encamped in cold States.
3. Born in cold States and encamped in warm States.
4. Born in warm States and encamped in cold States.

Comparing the distribution of lobar and broncho-pneumonia by States of occurrence, it appears that lobar pneumonia was relatively the commonest in the Gulf States and Arkansas and least common in the New England and Middle States and West Virginia. It is also low in Wyoming and Washington. The incidence of broncho-pneumonia (which is less common and more fatal) is somewhat different. Alabama no longer falls in the class of heaviest incidence of this disease. New England falls into three grades. Still the warmer States are clearly those of greatest incidence of the disease.

In respect to the territory from which camps draw there is a smaller difference between lobar and broncho pneumonia. Whereas the natives of Coastal States are little affected by lobar pneumonia, this is not true of broncho-pneumonia. In general, the occurrence of lobar pneumonia seems to be more dependent upon meterological conditions than is that of broncho-pneumonia.

3. MEASLES AS PRIMARY TO PNEUMONIA.

Pneumonia, primary, either lobar or bronchial, is a dangerous disease, both because of absolute number of admissions to sick report and because of its absolute mortality; but these diseases become much more dangerous when they occur as complications to measles. Thus, of 1,354 admissions on account of broncho-pneumonia complicating measles in white troops 45.6 per cent died, and of 680 admissions on account of lobar pneumonia complicating measles, 38.7 per cent died. The colored troops did not suffer relatively as much as white troops from these complications; though primary lobar pneumonia was relatively more numerous and relatively more fatal with the colored troops than with white troops.

The relation of measles to the pneumonias is not so much that pneumonia depends on measles for admission to the body, since there are nearly four times as many cases of primary pneumonia as of pneumonia following measles. Also, only a small proportion of cases of measles are followed by pneumonia; out of 47,573 cases of measles in the United States only 2,075 were followed by pneumonia. The striking fact is that when pneumonia does follow measles it is so often fatal. Measles diminishes resistance. It is to be noted, moreover, that when pneumonia follows measles, pneumonia is thrice as frequently of the bronchial as of the lobar type, though in primary pneumonia the lobar type is five times as common as the bronchial; and when broncho-pneumonia does complicate measles, it is fatal in 45 per cent of the cases, though when primary it is fatal in only 14 per cent of the cases. This is probably because the antecedent measles has diminished resistance or else has permitted a more virulent organism to enter into the tissues, namely streptococcus haemolyticus, which produces the so-called interstitial broncho-pneumonia. In negroes this especial morbidity of broncho-pneumonia complicating measles is striking. Thus, primary broncho-pneumonia is less fatal in that race than primary lobar pneumonia, but, as a complication of measles, broncho-pneumonia is nearly one and three-quarters more apt to end fatally in that race than lobar pneumonia. The colored race resists obar pneumonia following measles, but it is relatively unresistant to broncho-pneumonia complicating measles. Also, this relative predominance in the mortality of broncho-pneumonia over lobar pneumonia complicating measles is greater in the colored than in the white troops.

ABLE No. 93.—*Complications of primary lobar pneumonia, enlisted men in United States, 1917.*

Complications.	Number of cases.	Recovered.	Died.	Remaining.
bscess peritonsillar	1	1	....	....
bscess (all others)	4	2	1	1
rthritis	2	1	1	....
eningitis carrier (epidemic cerebrospinal	1	....	1	....
ardiac dilatation	2	....	2	....
ardiac hypertrophy	1	1	....	....
mbolism	1	....	1	....
ndocarditis, acute	5	2	3	....
emothorax	1	....	....	1
astoiditis	3	1	....	2
achymeningitis cervicals	1	1	....	....
eningitis, cerebrospinal (epidemic)	2	1	1	....
eningitis, other than epidemic or tuberculous	12	1	10	1
yocarditis	2	1	1	....
ephritis, acute	3	2	1	....
rchitis	1	1	....	....
titis media	33	22	1	10
titis media, mastoiditis	2	....	....	2
ericarditis, acute fibrinous	10	....	8	2
ericarditis purulent	1	....	1	....
ericarditis purulent; pleurisy suppurative	3	1	2	....
ericarditis with effusion	5	2	2	1
eritonitis, acute diffuse	1	....	1	....
hlebitis	2	1	....	1
ymphadenitis	1	....	1	....
eurisy fibrinous	61	40	13	8
leurisy, fibrinous; pericarditis, acute fibrinous	1	1	....	....
eurisy, fibrinous; pericarditis, purulent	1	....	....	1
eurisy, fibrinous; septicaemia, general	1	....	1	....
eurisy, fibrinous; sinusitis, frontal	1	1	....	....
eurisy, serofibrinous	38	27	7	4
eurisy, serofibrinous; pericarditis, acute fibrinous	2	1	1	....
eurisy, serofibrinous; peritonitis, acute local	1	....	1	....
eurisy, suppurative	282	7	4	271
eurisy, suppurative; osteomyelitis	1	1	....	....
eurisy, suppurative; pericarditis, acute fibrinous	1	1	....	....
eurisy, suppurative; pericarditis with effusion	1	....	1	....
eurisy, suppurative; peritonitis, acute diffuse	2	....	2	....
eurisy, suppurative; pleurisy, serofibrinous	3	1	2	....
eurisy, suppurative; septicaemia, general	3	....	3	....
eumothorax	2	1	1	....

TABLE No. 93.—*Complications of primary lobar pneumonia, enlisted men in United States, 1917*—Continued.

Complications.	Number of cases.	Recovered.	Died.	Remaining.
Purpura hemorrhagica	1	....	1	....
Septicaemia. general	5	....	5	....
Thrombosis	1	....	1	....
Broncho-pneumonia	4	....	2	2
Broncho-pneumonia; pleurisy, suppurative	1	....	1	....
Gangrene of lungs	1	....	1	....
Total	514	122	85	307

TABLE No. 94.—*Complications with fatal cases of lobar pneumonia, enlisted men in United States. 1917.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Abscess, all others	1	Pleurisy, serofibrinous; pericarditis, acute, fibrinous	1
Arthritis	1	Pleurisy, serofibrinous; peritonitis, acute local	1
Meningitis carrier (epidemic cerebrospinal)	1	Pleurisy, suppurative	4
Cardiac dilatation	2	Pleurisy, suppurative; pericarditis, with effusion	1
Embolism	1	Pleurisy, suppurative; peritonitis, acute diffuse	2
Endocarditis, acute	3	Pleurisy, suppurative; pleurisy, serofibrinous	2
Meningitis, cerebrospinal (epidemic)	1	Pleurisy, suppurative; septicaemia, general	3
Meningitis, other than epidemic; tuberculous	10	Pneumothorax	1
Myocarditis	1	Purpura hemorrhagica	1
Nephritis, acute	1	Septicaemia, general	5
Otitis media	1	Thrombosis	1
Pericarditis, acute fibrinous	8	Broncho-pneumonia	2
Pericarditis, purulent	1	Broncho-pneumonia: pleurisy, suppurative	1
Pericadartis, purulent; pleurisy, suppurative	2	Gangrene of lungs	1
Pericarditis, with effusion	2		
Peritonitis, acute diffuse	1	Total	85
Lymphadenitis	1		
Pleurisy, fibrinous	13		
Pleurisy, fibrinous; septicaemia, general	1		
Pleurisy, serofibrinous	7		

Total admissions for lobar pneumonia	6,964
Total deaths for lobar pneumonia	747

TABLE No. 95.—*Primary broncho-pneumonia complications, enlisted men in United States, 1917.*

Complications.	Number of cases.	Recovered.	Died.	Remaining.
Arthritis	2	1	1	....
Asthma	1	....	1	....
Cardiac dilatation	5	....	5	....
Edema	1	....	1	....
Embolism	1	....	1	....
Emphysema	1	1	....	....
Endocarditis, acute; myocarditis	1	1	....	....
Endocarditis, chronic	1	1	....	....
Myocarditis	1	....	1	....
Otitis media; mastoiditis	2	....	1	
Otitis media	16	3	3	1
Paranoia and paranoiac conditions	1	....	1	....
Pericarditis, acute fibrinous	1	....	1	....
Pleurisy, fibrinous	6	4	1	
Pleurisy, fibrinous; pericarditis, acute fibrinous	2	....	2	....
Pleurisy, serofibrinous; pericarditis, with effusion	1	....	1	....
Pleurisy, serofibrinous	8	2	3	
Pleurisy, purulent; pericarditis, purulent	1	....	1	....
Pleurisy, suppurative	41	6	11	2
Pneumothorax	1	....	1	....
Prostatitis	5	5	....	....
Septicemia, general	3	....	3	....
Total	102	24	39	3

TABLE No. 96.—*Complications with fatal cases of broncho-pneumonia, enlisted men in United States, 1917.*

Complications.	Number of deaths.
Arthritis	1
Asthma	1
Cardiac dilatation	5
Edema	1
Embolism	1
Myocarditis	1
Otitis media; mastoiditis	1
Otitis media	3
Paranoia and paranoiac conditions	1
Pericarditis, acute fibrinous	1
Pleurisy, fibrinous	1
Pleurisy, fibrinous; pericarditis, acute fibrinous	2
Pleurisy, serofibrinous; pericarditis, with effusion	1
Pleurisy, serofibrinous	3
Empyema; pericarditis, purulent	1
Pleurisy, suppurative	11
Pneumothorax	1
Septicemia, general	3
Total	39

Total admissions for broncho-pneumonia	1,468
Total deaths for broncho-pneumonia	202

III. VENEREAL DISEASES.

The venereal diseases constitute a group of great social as well as medical interest. Communicated, for the most part, by illicit sexual intercourse and chiefly by prostitution, their prevalence constitutes a rough measure of the failure of education and other social influences to secure control of the sex impulse on the part of the male population. Since instruction as to the importance of such control is generally diffused, the prevalence of venereal disease is a partial measure of the inability of a part of the population to inhibit its sex impulse. Moreover, since the amount of prostitution can be diminished by repressive measures, the frequency of the venereal diseases in any region is partially influenced by the completeness of such repressive measures.

1. CLASSIFICATION.

The venereal diseases are grouped in our statistics into three classes, syphilis, chancroid, and gonococcus infection.

2. SUMMARY OF STATISTICS.

The total number of cases of admission to sick report for venereal diseases for the total enlisted men, American troops, for the year 1917 was 71,955. The total number of days lost in hospitals or at quarters on account of these diseases was 875,553, or 2,399 years. Of these, 1,415 years were lost from gonorrhea, 584 years from syphilis, and 400 years from chancroid. The importance of these diseases in producing ineffectives in the Army is thus obvious.

Considering now, for a moment, only the admissions to sick report of enlisted [1] men in the United States, we find there are 63,586 of them. Of these 59,503 are for white troops, 4,083 for colored troops. This gives a ratio per 1,000 mean strength of 109.1 for the white troops and 310.5 for the colored, the colored being 2.8 times the more numerous relatively.

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[1] The term enlisted men includes privates and noncommissioned officers of all grades, whether they have enlisted in the Army by voluntary enlistment or by draft.

Distributed by the three principal diseases we have the following rates and the multiple that the colored rate is of the white rate:

Disease.	Rate per 1,000 mean strength.		
	White.	Colored.	Multiple.
Syphilis	14.22	54.68	3.85
Chancroid	12.38	52.78	4.25
Gonorrhea	82.48	203.04	2.46

From these figures we may conclude that, not only is venereal disease commoner among colored than white troops in the United States, but that the separate diseases are commoner in the order, chancroid, syphilis, gonorrhea.

Map showing distribution of ratio of total admissions for venereal diseases per 1,000 mean strength in National Army camps. 1. 230–210. Travis, 229.39; Lewis, 211.15. 2. 180–140. Sherman, 178.29; Dix, 164.17; Gordon, 163.41; Meade, 156.23; Taylor, 142.25. 3. 130–55. Custer, 129.26; Dodge, 127.60; Pike, 113.00; Funston, 86.36; Lee, 77.92; Grant, 55.80. 4. 50–40. Upton, 47.44; Jackson, 46.74; Devens, 43.55. The States that contributed recruits to a given camp are marked with the symbol that indicates the ratios of admissions at that camp.

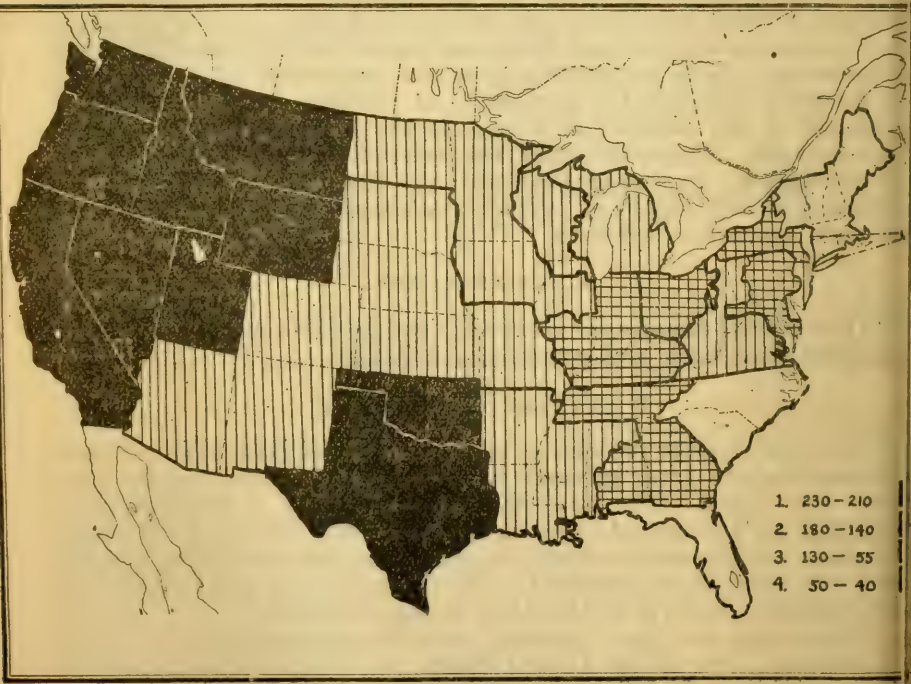

CHART NO. 60.

Considering the case morbidity, it appears that in syphilis the ,7557 whites admitted were 161,788 days on sick report, an average of 20.8 days; in chancroid the 6,758 whites admitted were sick on an average of 15.4 days; in gonorrhea the 44,990 white admissions were sick on an average of 9.7 days. Among the colored enlisted men, on the other hand, the average case morbidity was for syphilis 19.5 days;

for chancroid, 13.8 days; for gonorrhea, 6.3 days. A comparison of the last two paragraphs leads to the conclusion that (provided white and colored venereal cases receive similar treatment) a case of gonorrhea runs a much less serious course among colored than white troops.

3. CRITIQUE OF STATISTICS.

We now come to a group of inquiries, such as relative frequency of venereal disease in the Army and in civil life, in various branches of the Army, etc., for which significant answers can only be obtained after the nature of the Army statistics has been more fully considered. To such a consideration, therefore, we now turn.

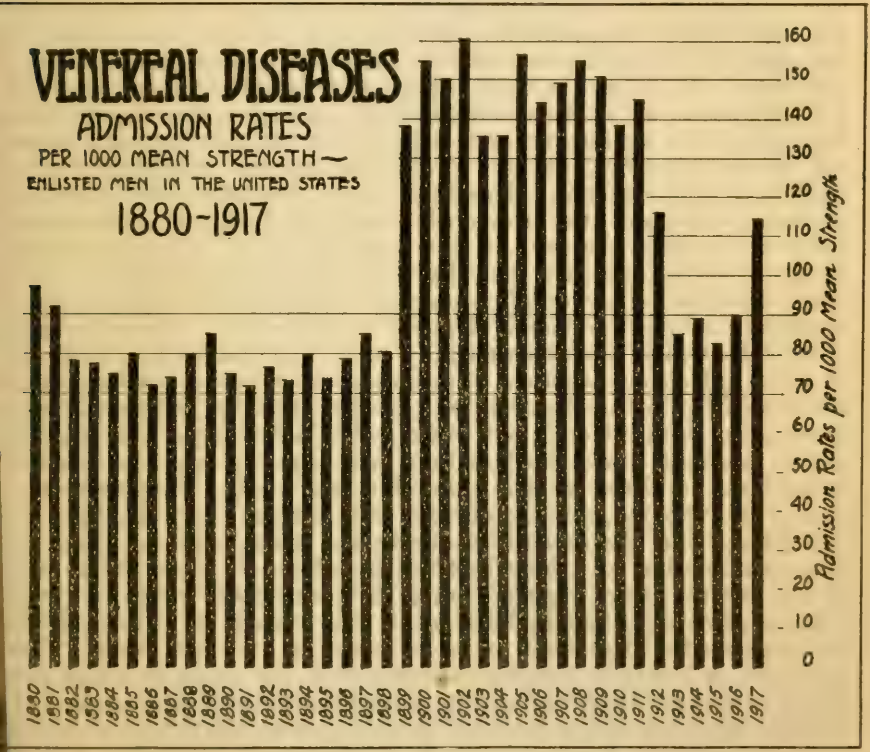

CHART NO. 61.

The admissions to sick report are made up of two dissimilar groups ombined. One group consists of the cases of venereal disease that re contracted by soldiers while they are soldiers. The soldiers, as whole, represent a group of men who after they entered the Army ere cured of any active symptoms of venereal disease they may ave had. Then, each Thursday night, those who during the past eek dave been admitted to sick report (practically all of those who cquire the disease) are counted and a report made of the number. uch counting is, consequently, only of the recently infected. This onstitutes the one group of the total of admissions. One may not onclude that the number of admissions of soldiers measures the mount of illicit sexual intercourse. The Government has provided in each town near a camp and at each camp dispensaries where each soldier who has been exposed to infection is required to go for antivenereal prophylactic treatment. The penalty for neglect of this requirement is of such a sort that many of the delinquents receive treatment. Moreover, by thorough repressive measures in 1917, the activity of prostitutes about Army camps and in near-by towns has been reduced to a minimum. In consequence of these measures, combined with careful instruction as to the importance of continence, severe muscular activity, inaccessibility of alcoholic drinks, and well-organized relaxation, the number of soldiers who weekly are admitted to sick report for venereal disease is often strikingly small.

The second group of those admitted to sick report for venereal disease comprises cases detected as men from civil life were undergoing physical examination. The number of such men who are examined in a single week may be very great, sometimes as many as 10,000. They have in their earlier years received neither the careful instruction as to the desirability of continence nor the facilities for prophylaxis against venereal disease, nor the aids toward repressing the sex instinct, nor the protection against designing women which the camp affords. These new Army recruits of the week are not men who have just previously been cured of any active symptoms of venereal disease; on the contrary, they often show evidence of acute gonorrhea that they may have acquired 1, 2, 3, 5, or even 10 weeks earlier, or of chronic gonorrhea which may have been acquired through the course of many earlier weeks. Also, the cases of syphilis which are detected may be of long standing. Now, all of these infections, whether of more recent or more remote origin, are brought into the examination together with the individuals who have never been infected, are examined in a few days, and perhaps within a single week the infections are reported and the infected individuals admitted to sick report for that week. They represent, it may be repeated, not the current infections of the week (like the first group) but the detections during the week, resulting from the first examination of a long infected population. That 10,000 men of the second group reported on in a week should reveal a larger number of cases of venereal disease in that week than 10,000 soldiers in camp do for that week is to be expected and it is found. For example, in the latest report at hand, over ten times as many new admissions were from the second group as from the first group. It is clear that one is not justified in saying that relatively ten times as many civilians become infected with venereal disease in a week as do men in camp. The proportion of men found infected at the entrance physical examination during a week tells nothing about weekly rate of infection of the civilian population. Not unless the civilian population should become subjected to the same scrutiny and discipline as the Army population may we know, as we do from the Army, what proportion of the civil population gets infected each week.

Still, again, we may not compare the numerical importance of venereal diseases with other diseases in the Army, such as pneumonia, measles, scarlet fever, etc., by comparing the total number weekly admitted to sick report of venereal diseases and of the other diseases. The reason is that while, as we have seen, most of the venereal disease that comes to sick report is that detected among recruits coming to physical examination, very little or practically none of the pneumonias, measles, or scarlet fever admitted to sick report in any week is detected in the physical examination. The reason is twofold: First, persons who have active symptoms of pneumonia, measles, and scarlet fever are apt to defer their entrainment for camp, and, secondly, since these diseases run a swift course, the chance of a person who comes to the physical examination being in course of one of these diseases is relatively small. On the other hand, a person with a venereal disease does not defer his entrainment on that account (his symptoms do not interfere with his traveling about), and since the disease is prolonged in its course the chance that a person may be examined while in course of a venereal disease is relatively great. Supposing, to make this clearer, that every drafted man had been once infected with a venereal disease and with measles and pneumonia and scarlet fever between 1 and 365 days of the time he presented himself for examination, and assume also that all came up, whether sick or well, there would then probably be ten times as many cases of venereal disease to report as of all the other diseases together; because the sum of the period of duration of the other three diseases is probably only about one-tenth of the average duration of the various venereal diseases. That vastly more cases of venereal disease should be detected at the physical examination than of pneumonia, measles, and scarlet fever tells nothing about the relative numerical importance of these diseases. If, now, we turn to the camp population, we find that at a time of year when measles, pneumonia, and scarlet fever are not common there were in the week ending August 30, 1918, nearly twice the number of measles and 5 per cent more of pneumonia than of new infections from all venereal diseases added together. And this week is fairly representative of a summer week, but in the winter the measles, pneumonia, and scarlet fever increase much more than the venereal diseases. It is then only because each venereal disease in civil life has such a relatively long duration and consequently the chance of examination in affected persons is relatively large and because venereal diseases do not interfere with entrainment that relatively so many cases of venereal diseases find their way to the sick record at times of draft increments.

Having now cleared the ground of certain fallacies we may proceed to constructive investigations as to the distribution of venereal disease in the Army and in the general population.

As stated above, we do not know for the civilian population (as for the military) the rate at which they become infected with venereal disease. We may, however, compare parts of the civil population by considering the proportion found infected at entrance into the service. This proportion is not exactly given in our statistics (in which the new infections are mixed with the cases discovered on entrance) but since, in times of great increments to camp, the dilution of the numbers derived from the civil population by those from soldiers is relatively little, we may neglect it and assume that the cases of venereal disease admitted to sick report during the period that a camp is being filled up are practically determined by (or proportioned to) the cases of venereal disease detected in the draft increments.

To get at the ratio: admission ÷ increments, a table of strength of increments of the Army in the United States, and indeed, of our three armies of 1917, was drawn up (Table 97). With these increments, are compared the admissions to sick report from gonorrhea. Gonorrhea is selected as the commonest and one of the most easily detected of the venereal diseases.

An inspection of this table shows that for each Army there was a period of rapid increase followed by a reduction in the monthly increase. This reduction is usually due to the fact that regiments or divisions were withdrawn from the United States, but in part is due to a reduction in recruiting, as in September and October, 1917 (Chart 9). If now we select those months when each Army was most rapidly increasing we shall have the desired increments to compare with the admission from venereal disease and Table 97 has been constructed in accordance with these principles. Using the ratios thus deduced we are in a position to answer various inquiries about the relative prevalence of venereal disease in the Army and in civil life.

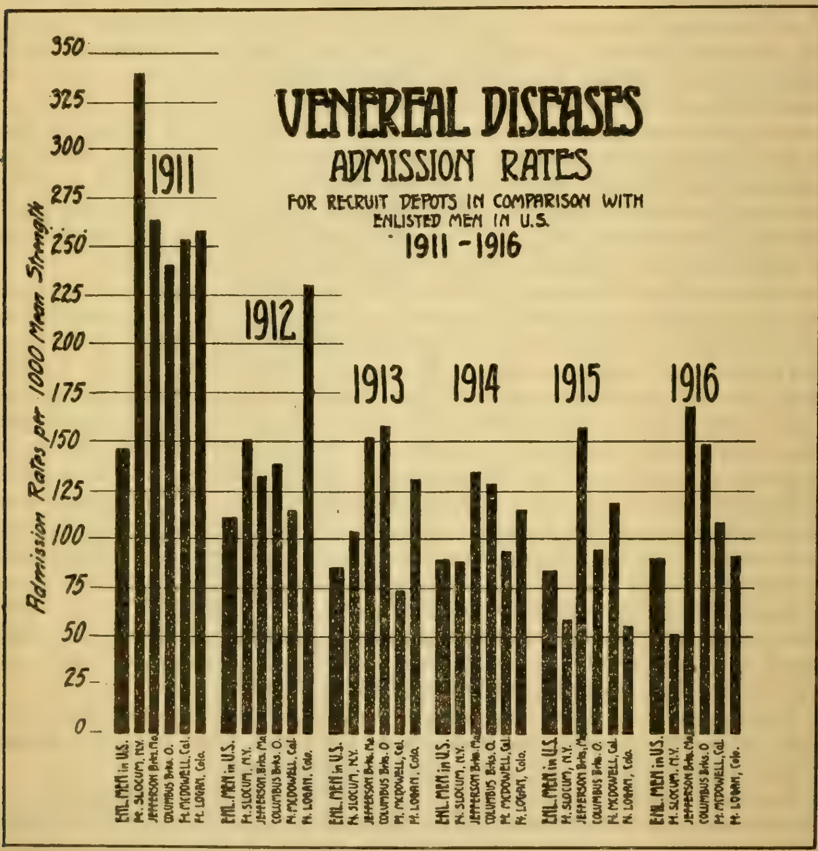

CHART No. 62.

4. IS VENEREAL DISEASE MORE OR LESS FREQUENT IN THE ARMY THAN IN CIVIL LIFE?

This is a frequent inquiry, but for reasons stated above it is impossible to give a precise answer. It appears from Table 109 that the most probable proportion of gonococcus infection in the males of draft age is between 2 and 3 per cent.

We may perhaps get a more precise estimate by dealing with the figures for the National Army alone. Up to the 31st of December about 465,000 enlisted men had been inducted into that Army, and there had been 12,351 admissions for gonorrhea in this Army. Assuming 11,000 of these cases have been detected at time of mobilization we have 2.37 per cent infected.[1] Since gonorrhea was not a cause of rejection by local boards or elsewhere, this would appear to give a fairly close estimate of the proportion of persons, age 21 to 31, in civil life who at a given time have obvious symptoms of gonorrhea. In camp the initial cases of gonorrhea have been cured. In consequence of Army ideals and restraint, and in consequence of Army medical prophylaxis, relatively few new infections are gained each week, and since cases of gonorrhea that do come to sick report are mostly cured in a few weeks, the number of current venereal diseases in the Army camps is remarkably small; and much less than the present components of the Army had before they were inducted into military service, and before they had undergone the medical cleaning up that accompanied that induction.

5. COMPARISON OF FREQUENCY OF GONORRHEA IN WHITE AND IN COLORED TROOPS.

It has already been shown that, using the total admission to sick report, there is about 2.5 times as much gonorrhea among colored as white recruits. This result may be tested by the method of ratio of admission for gonorrhea to increments of white and colored respectively.

Of the 465,000 National Army men who have been examined up to December, 1917, probably about 3.3 per cent were colored.[2] Of the 12,351 admissions for gonorrhea in this Army 6.55 per cent were for colored troops—almost exactly twice the rate for whites.

Again the mean strength of the American troops in the United States Army, December, 1917, is given as 1,450,462, and that of January, 1917, as 200,224. Consequently, there were admitted to the Army during 1917 at least 1,250,000 men, and, indeed, some thousands more—let us assume, for the sake of calculation, 1,300,000. Assuming that no man was admitted twice to sick report for venereal diseases of all sorts we would have 71,955 men admitted, or 55 persons out of every 1,000 troops so admitted (including old infections in recruits and new infections). Making similar assumptions for white troops we have, for 1,250,000 white men entering and remaining in the Army, 66,903 admissions to sick report for venereal diseases, or 53 white enlisted men admitted out of every 1,000 in the Army. Of colored troops we have 45,000 enlisted men 5,052 admissions to sick report for venereal disease, or 112 colored persons so admitted out of every 1,000 strength. Here, again, there are relatively twice as many colored as white recruits (and troops) admitted to sick report for venereal disease.

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[1] At the time of physical examinations at camps, 2.23 per cent of the recruits were found to have gonorrhea, according to later statistics.

[2] The average enlisted strength of selected camps in the United States in December was 857,563, of whom 29,3 5 were colored, or 3.4 per cent. The Adjutant General gives for the whole Army in the United States a mean strength of 1,248,172 in December, of which 38,555 are colored, or 3.1 per cent.

6. RELATIVE AMOUNT OF VENEREAL DISEASE IN THE THREE ARMIES. IS THERE A DIFFERENCE IN THE INCIDENCE OF VENEREAL DISEASE IN THE REGULAR ARMY, THE NATIONAL GUARD, AND THE NATIONAL ARMY?

Considering the mean annual rate of venereal disease per 1,000 as given in Table 102, it appears that the rate for white troops is 114 for Regulars, 120 for the National Guard, and 90 for the National Army, and, among colored troops, 352 for the Regulars, 590 for the National Guard, and 213 for the National Army. In general, the annual admission rate is least in the National Army, greater in the Regulars, and greatest in the National Guard, in the ratio of 95:120:124.

This comparison of ratios is not altogether satisfactory in view of the fact that the armies grew at so very diverse rates; so that the diseases brought in by increments played a very diverse part. So a new table (Table 97) was made giving for the various armies the relation of admission to sick report for gonorrhea to increments of the armies, as shown (in part) in figures 10 to 39.

TABLE No. 97.—*Gonorrhea by increments.*

Month.	Regular Army in United States.			National Guard in United States.			National Army in United States.		
	Increment in 1,000s.[1]	Admissions.	Ratio of admissions to increment.	Increment in 1,000s.[1]	Admissions.	Ratio of admissions to increment.	Increment in 1,000s.[1]	Admissions.	Ratio of admissions to increment.
January	2	294	....	....	221	....	....	....	....
February	4	315	....	− 19	223	....	....	....	....
March	5	349	....	12	112	....	....	....	....
April	28	539	1.92	24	419	1.74	....	....	....
May	40	704	1.76	8	434	5.42	....	....	....
June	48	1,047	2.18	21	606	2.88	6	35	....
July	41	1,193	2.91	146	1,167	.80	4	64	....
August	22.5	1,563	....	98	2,184	2.23	2	11	....
September	− 7	2,262	....	10	3,217	....	279	3,456	1.24
October	3	3,595	....	37	4,547	....	75	3,927	5.24
November	17	2,773	....	24	3,230	....	24	2,816	11.70
December	43	2,430	....	− 2	1,800	....	74	2,028	2.75

[1] See (in part) Report of the Adjutant General of the Army to the Secretary of War, Washington, 1917, Table B.

A study of Table 97 shows plainly that only certain selected portions of it can be used for our purpose. Thus, of the Regular Army, we can make use of only the months of April, May, June, and July. Later than that the increment is not significant, since troops were going overseas and the apparent increment in the United States is merely the difference between the additions by recruiting and the subtraction of the overseas troops. To divide the total number of admissions from gonorrhea by this difference tends to give an absurdly high figure. For similar reasons we take the National Guard figures for April to August inclusive only. For the National Army we take the period September to December, inclusive. On these assumptions we find in the Regular Army 3,483 admissions at a time when 157,000 recruits are being received, or 22 per 1,000 recruits. In the National Guard 5,010 admissions occurred at a time when 265,000 men were being enlisted, or 19 per 1,000. In the National Army 12,227 admissions at a time when 452,000 were being inducted into service, or 27 per 1,000 men. On this basis the relation of infection in increments of the National Guard, Regular Army, and National Army, is as 19:22:27.

Here again we reach the conclusion that the amount of active gonorrhea in our white civil population among men of age 20 to 35 is at one time only about 2 per cent.

We can reach a comparison of the proportion of venereal disease between volunteers (National Guard) and drafted men by comparing the ratio of admissions for gonorrhea to increments in the National Guard camps and in the National Army camps. This comparison is made in Table 98. In this comparison the drafted men show a higher incidence of venereal disease than volunteers in the ratio of 167 to 126 or as 4 to 3. Since the other comparison gives the relation of National Guard to National Army as about 5 to 3, it is probable that the facts lie between the two results or as 4.5 to 3 or 1.5 to 1. That is, the drafted men showed about one and one-half times more venereal disease than the volunteers. But it is to be recalled that a large part of the increments to the National Guard had previously seen service, had been cured of venereal disease and had the benefit of knowledge as to prevention and prophylaxis acquired in the Army.

TABLE NO. 98.—*Gonorrhea, by increments, by camps.*

Camps.	National Army, white.			Camps.	National Guard, white.		
	Increment in 1,000s, September-December, 1917.	Admissions of gonorrhea, September-December, 1917.	Ratio in per cent of admissions to increment.		Increment in 1,000s, September-December, 1917.	Admissions of gonorrhea, September-December, 1917.	Ratio in per cent of admissions to increment.
Taylor	22.3	378	1.69	Kearney	23.1	857	3.71
Travis	25.6	767	2.99	Greene	38.4	323	.84
Upton	27.2	41	.15	Sevier	22.8	385	1.69
Custer	17.3	139	.81	Shelby	21.9	165	.76
Devens	26.8	86	.32	Sheridan	21.2	606	.50
Dix	23.1	458	1.98	MacArthur	26.4	264	1.00
Dodge	21.6	383	1.77	Doniphan	26.9	349	1.30
Funston	41.9	570	1.36	Beauregard	17.0	139	.82
Gordon	33.4	778	2.33	Bowie	25.9	192	.74
Grant	27.4	149	.55	Cody	28.7	402	1.41
Lee	25.9	228	.88	Wadsworth	28.5	297	1.04
Meade	28.9	525	1.82				
Lewis	36.2	1,360	3.76				
Sherman	30.7	501	1.63				
Jackson	22.8	162	.71				
Total (15 camps)	411.1	6,525	....	Total (11 camps)	28.18	3,479	....
Average	....	....	1.59	Average	....	....	1.23

7. RELATIVE FREQUENCY OF VENEREAL DISEASES IN RURAL VS. URBAN RECRUITS. ARE RECRUITS FROM THE CITIES MORE LARGELY INFECTED WITH VENEREAL DISEASE THAN THOSE FROM RURAL DISTRICTS?

Using method of admission to sick report in relation to increments, camps are first separated into two groups (*a*) the urban group, including camps that received troops from a population of high density (as shown in Chart 47) and (*b*) the rural group, of which the tributary population came from regions of low density. Furthermore, the National Army and National Guard camps are treated separately. Then the total admissions to sick report for gonorrhea from any group are divided by the total increments in that group. The ratio is expressed per 1,000. The results are that in National Army urban camps the rate of admission for gonorrhea is 10.2, in National Guard urban camps 8.5, all urban camps 9.7 per 1,000, of increment. On the other hand in National Army rural camps the rate is 21.5; in National Guard rural camps 14.4; in all rural camps, 18.3. That is, there is almost exactly twice the amount of gonorrhea among rural recruits that there is among urban recruits. The difference in racial constitution (white and colored) of urban and rural communities does not significantly influence this result.

Incidentally, this table reveals the excess of venereal disease in the increments to National Army over those to the National Guard camps that we have seen before. The ratio is about the same as before (124:159) although not all camps are included in both tables.

TABLE No. 99.—*Gonorrhea by increments by camps by months.*

National Army camps.	Increment in 1,000's September–December, 1917.	Admissions: gonorrhea, September–December, 1917.	Ratio per mille of admissions to increment.	National Guard camps.	Increment in 1,000's September–December, 1917.	Admissions: gonorrhea, September–December, 1917.	Ratio per mille of admissions to increment.
URBAN CAMPS.				URBAN CAMPS.			
Upton	27.2	41	1.5	Sheridan	21.6	106	5.0
Devens	26.8	86	3.2	Shelby	21.9	165	7.6
Meade	28.7	525	18.2	MacArthur	26.4	264	10.0
Grant	27.4	149	5.5	Wadsworth	28.5	297	10.4
Dix	23.1	458	19.8				
Sherman	30.7	501	16.3	Total (4 camps)	98.4	832	8.5
Custer	17.3	139	8.1				
Lee	25.9	228	8.8	RURAL CAMPS.			
Total (8 camps)	207.1	3,127	10.2	Greene	38.4	323	8.4
				Beauregard	17.0	139	8.2
RURAL CAMPS.				Doniphan	26.9	349	13.0
				Bowie	25.9	192	7.4
Taylor	22.3	378	16.9	Cody	28.7	401	14.1
Jackson	22.8	162	7.1	Sevier	22.8	385	16.9
Dodge	21.6	383	17.7	Kearney	23.1	857	37.1
Funston	41.9	570	13.6				
Gordon	33.4	778	23.3	Total (7 camps)	182.8	2,646	14.4
Travis	25.6	767	29.9				
Lewis	36.2	1,360	37.6				
Total (7 camps)	203.8	4,398	21.5				

8. HOW DOES THE RATE FOR GONOCOCCUS INFECTION IN THE ARMY IN EUROPE COMPARE WITH THAT IN AMERICA?

Rumors have been spread of the great amount of venereal infection among our soldiers in France. Is there any justification for these rumors? The statistics give a mean annual admission rate for gonorrhea of 36.24 per 1,000 in Europe and 82.47 in the United States. Also among colored troops of 66.4 per 1,000 in Europe as compared with 203.04 per 1,000 in the United States. The figures are thus larger for troops in the United States than for troops in Europe. Conclusions may be drawn from this statistical result only with caution.

As we have seen above the admission rates for venereal disease in the United States troops contain the infections, often long standing, of recruits; while those of Europe comprise only current infections of men in the service. In our relatively stable Army of 1913 the mean annual rate for white enlisted men was 53.7, while that for colored enlisted men was 82.3. Both of these rates are greater than the corresponding rates for enlisted men in Europe, 1917. On the other hand the European rates exceed the midsummer rates of 1918 in the United States which are about 14 per 1,000.

TABLE No. 100.—*Admissions, gonorrhea, by month, by race, and branch.*

Month.	White Regulars.	White National Guard.	White National Army.	Colored Regulars.	Colored National Guard.	Colored National Army.	Total.
January	291	291	2	3	....	1	588
February	296	223	3	19	....	....	541
March	343	112	5	6	....	....	466
April	520	418	2	19	1	....	960
May	684	430	....	20	4	1	1,139
June	1,037	602	35	10	4	....	1,688
July	1,170	1,149	63	23	18	1	2,424
August	1,518	2,099	9	45	85	2	3,758
September	2,222	3,156	3,443	40	61	13	8,935
October	3,095	4,426	3,808	500	121	119	12,069
November	2,379	3,091	2,502	394	139	314	8,819
December	2,231	1,666	1,658	199	134	370	6,258
Total	**15,786**	**17,663**	**11,530**	**1,278**	567	821	47,646

TABLE No. 101.—*Admissions for venereal disease among enlisted men in the United States by color of men and branch of service (absolute nuambers).*

Disease.	White.				Colored.				Total, white and colored.			
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.
SYPHILIS.												
Syphilis, hereditary	11	5	2	18	....	....	....	....	11	5	2	18
Syphilis, primary	812	795	492	2,099	105	33	126	264	917	828	618	2,363
Syphilis, secondary	1,769	1,707	1,071	4,547	113	46	132	291	1,882	1,753	1,203	4,838
Syphilis, tertiary	431	379	277	1,087	73	8	82	163	504	387	359	1,250
Retinitis, syphilitic	4	....	....	4	....	1	....	1	4	1	....	5
Total, syphilis	3,027	2,886	1,842	7,755	291	88	340	719	3,318	2,974	2,182	8,474
CHANCROID.												
Chancroid	3,013	2,270	860	6,143	262	176	184	622	3,275	2,446	1,044	6,765
Chancroidal lymphadenitis	242	207	59	508	25	16	15	56	267	223	74	564
Chancroidal lymphangitis	1	....	....	1	....	....	....	....	1	....	....	1
Chancroidal paraphimosis	3	2	....	5	....	....	....	....	3	2	....	5
Chancroidal phimosis	33	51	17	101	2	5	9	16	35	56	26	117
Total, chancroid	3,292	2,530	936	6,758	289	197	208	694	3,581	2,727	1,144	7,452
GONOCOCCUS INFECTION.												
Gonococcus infection of (L)	15,786	17,663	11,530	44,979	1,278	567	821	2,666	17,064	18,230	12,351	47,645
Gonorrheal stricture of the urethra	3	3	5	11	....	....	4	4	3	3	9	15
Total, gonoroccus infection	15,789	17,666	11,535	44,990	1,278	567	825	2,670	17,067	18,233	12,360	47,660
Total	22,108	23,082	14,313	59,503	1,858	852	1,373	4,083	23,966	23,934	15,686	63,586

TABLE NO. 102.—*Admissions for venereal diseases among enlisted men in the United States by color of men and branch of service (ratio per 1,000 mean strength).*

Disease.	White.				Colored.				Total, white and colored.			
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.
SYPHILIS.												
Syphilis, hereditary	0.06	0.03	0.01	0.03	....	....	....	....	0.06	0.03	0.01	0.03
Syphilis, primary	4.19	4.14	3.09	3.85	19.92	22.84	19.59	20.08	4.60	4.28	3.72	4.23
Syphilis, secondary	9.12	8.89	6.72	8.34	21.43	31.83	20.52	22.13	9.44	9.06	7.25	8.66
Syphilis, tertiary	2.22	1.97	1.74	1.99	13.85	5.54	12.75	12.39	2.53	2.00	2.16	2.24
Retinitis, syphilitic	.02	....	....	.01	....	.69	....	.08	.02	.01	....	.01
Total, syphilis	15.61	15.03	11.55	14.22	55.20	60.91	52.86	54.68	16.65	15.37	13.15	15.17
CHANCROID.												
Chancroid	15.53	11.82	5.39	11.26	49.70	121.80	28.60	47.30	16.44	12.64	6.29	12.10
Chancroid lymphadenitis	1.25	1.08	.37	.93	4.74	11.07	2.33	4.26	1.34	1.15	.45	1.01
Chancroidal lymphangitis	.01	....	....	.01	....	....	....	....	....	....	....	....
Chancroidal paraphimosis	.02	.01	....	.01	....	....	....	....	.01	.01	....	.01
Chancroidal phimosis	.17	.27	.11	.19	.38	3.46	1.40	1.22	.18	.29	.16	.21
Total, chancroid	16.97	13.18	5.87	12.38	54.82	136.30	32.33	52.78	17.97	14.09	6.90	13.34
GONOCOCCUS INFECTION.												
Gonococcus infection of (L)	81.38	91.98	72.31	82.45	242.41	392.39	127.62	202.75	85.64	94.23	74.44	85.28
Gonorrheal stricture of the urethra	.02	.02	.03	.02	....	....	.62	.30	.01	.02	.05	.03
Total, gonorrheal infection	81.40	92.00	72.34	82.48	242.41	392.39	128.24	203.04	85.66	94.25	74.50	85.31
Total	113.97	120.20	89.74	109.10	352.43	589.60	213.44	310.50	120.28	123.71	94.56	113.82

Mean strength: Regulars—white, 193,991; colored, 5, 272. National Guard—white, 192,044; colored, 1,445. National Army—white, 159,483; colored, 6,433.

TABLE No. 103.—*Discharges from venereal disease among enlisted men in the United States by color of men and branch of service (absolute numbers).*

Disease.	White.				Colored.				Total white and colored.			
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.
SYPHILIS.												
Syphilis, hereditary	2	1	....	3	....	....	....	....	2	1	....	3
Syphilis, primary	10	26	4	40	....	3	....	3	10	29	4	43
Syphilis, secondary	50	48	52	150	6	2	....	8	56	50	52	158
Syphilis, tertiary	84	54	27	165	14	1	15	30	98	55	42	195
Retinitis, syphilitic	....	....	....	....	....	....	....	....	....	....	....	....
Total syphilis	146	129	83	358	20	6	15	41	166	135	98	399
CHANCROID.												
Chancroid	4	6	2	12	....	....	1	1	4	6	3	13
Chancroidal lymphadenitis	....	....	....	....	....	....	....	....	....	....	....	....
Chancroidal lymphangitis	....	....	....	....	....	....	....	....	....	....	....	....
Chancroidal paraphimosis	....	....	....	....	....	....	....	....	....	....	....	....
Chancroidal phimosis	....	....	....	....	....	....	....	....	....	....	....	....
Total chancroid	4	6	2	12	....	....	1	1	4	6	3	13
GONOCOCCUS INFECTION.												
Gonococcus infection of (L)	111	171	32	314	9	....	5	14	120	171	37	328
Gonorrheal stricture of the urethra	....	....	....	....	....	....	....	....	....	....	....	....
Total gonococcus infection	111	171	32	314	9	....	5	14	120	171	37	328
Total	261	306	117	684	29	6	21	56	290	312	138	740

TABLE No. 104.—*Discharges from venereal disease among enlisted men in the United States by color of men and branch of service (ratio per 1,000 mean strength).*

Disease.	White.				Colored.				Total white and colored.			
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.
SYPHILIS.												
Syphilis, hereditary	0.01	0.01		0.01					0.01	0.01		0.01
Syphilis, primary	.05	.14	0.03	.07		2.08		0.23	.05	.15	0.02	.08
Syphilis, secondary	.26	.25	.33	.27	1.14	1.38		.61	.28	.26	.31	.28
Syphilis, tertiary	.43	.28	.17	.30	2.66	.69	2.33	2.28	.49	.28	.25	.35
Retinitis, syphilitic												
Total syphilis	.75	.68	.53	.66	3.80	4.15	2.33	3.12	.83	.70	.58	.71
CHANCROID.												
Chancroid	.02	.03	.01	.02			.16	.08	.02	.03	.02	.02
Chancroidal lymphadenitis												
Chancroidal lymphangitis												
Chancroidal paraphimosis												
Chancroidal phimosis												
Total chancroid	.02	.03	.01	.02			.16	.08	.02	.03	.02	.02
GONOCOCCUS INFECTION.												
Gonococcus infection of (L)	.57	.89	.20	.58	1.71		.78	1.06	.60	.88	.22	.58
Gonorrheal stricture of the urethra												
Total gonococcus infection	.57	.89	.20	.58	1.71		.78	1.06	.60	.88	.22	.58
Total	1.35	1.59	.73	1.25	5.50	4.15	3.26	4.26	1.46	1.61	.83	1.32

Mean strength: Regulars—White, 193,991; colored, 5,272. National Guard—White, 192,044; colored, 1,445. National Army—White, 159,483; colored, 6,433.

TABLE NO. 105.—*Venereal disease among American troops in United States, Hawaii, Philippine Islands, and Panama, by color of men, for years 1913 to 1917, with ratios per 1,000 mean strength.*

Year.	United States.						Hawaii.						Philippine Islands.						Panama, white.	
	White.		Colored.		Total.		White.		Colored.		Total.		White.		Colored.		Total.			
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1917.																				
Syphilis	7,755	14.22	719	54.68	8,474	15.17	77	8.27	41	19.50	118	10.34	525	56.01	62	41.17	587	53.96	146	18.00
Gonorrhea	44,990	82.47	2,670	203.04	47,660	85.31	316	33.93	79	37.58	395	34.60	835	89.09	189	125.50	1,024	94.13	536	66.08
Chancroid	6,758	12.39	694	52.78	7,452	13.34	117	12.56	28	13.32	145	12.70	451	48.11	307	203.85	758	69.67	322	39.70
1916.																				
Syphilis	1,092	17.81	38	45.84	1,130	18.18	120	18.00	60	33.19	180	21.24	388	36.48	27	28.57	415	35.84	133	19.61
Gonorrhea	3,303	53.86	77	92.88	3,380	54.39	305	45.74	104	57.52	409	48.26	891	83.78	176	186.24	1,067	92.14	426	62.81
Chancroid	1,093	17.82	15	18.09	1,108	17.83	161	24.15	82	45.35	243	28.67	379	35.64	30	31.75	409	35.32	253	37.30
1915.																				
Syphilis	1,072	17.28	30	12.30	1,102	17.09	160	23.85	76	40.79	236	27.53	398	37.93	84	62.64	482	40.73	91	15.91
Gonorrhea	3,138	50.59	102	41.82	3,240	50.24	388	57.83	129	69.24	517	60.31	1,053	100.35	220	164.05	1,273	107.57	390	68.17
Chancroid	970	15.63	43	17.63	1,013	15.71	73	10.88	23	12.35	96	11.20	4 7	38.79	43	32.06	450	38.02	300	52.42
1914.																				
Syphilis	1,127	18.65	14	7.66	1,141	18.32	100	16.00	49	28.50	149	18.69	396	47.28	91	48.46	487	47.49	36	17.91
Gonorrhea	3,112	51.48	53	28.99	3,165	50.83	232	37.11	92	53.52	324	40.65	671	80.11	180	95.85	851	83.00	147	73.14
Chancroid	1,198	19.82	29	15.86	1,227	19.70	44	7.04	20	11.63	64	8.03	397	47.40	168	89.46	565	55.10	90	44.77
1913.																				
Syphilis	1,226	20.76	36	21.23	1,262	20.78	109	21.45	46	43.89	155	25.29	303	32.31	68	37.55	371	33.16	20	25.09
Gonorrhea	2,862	48.47	102	60.14	2,964	48.80	258	50.77	87	83.02	345	56.28	785	83.71	190	104.92	975	87.14	63	79.04
Chancroid	877	14.85	42	24.76	919	15.13	44	8.66	18	17.18	62	10.11	232	24.74	94	51.90	326	29.14	74	92.85

TABLE NO. 106.—*Venereal disease among American troops in United States, Hawaii, Philippine Islands, and Panama, by color, for years 1913 to 1917, with ratios per 1,000 mean strength.*

Year.	United States (including Alaska).						Hawaii.						Philippine Islands.						Panama, white.	
	White.		Colored.		Total.		White.		Colored.		Total.		White.		Colored.		Total.			
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
1917......	59,503	109.08	4,083	310.49	63,586	113.82	510	54.76	148	70.40	658	57.64	1,811	193.21	558	370.52	2,369	217.76	1,004	123.78
1916......	5,488	89.49	130	156.82	5,618	90.40	586	87.88	246	136.06	832	98.16	1,658	155.91	233	246.56	1,891	163.30	812	119.71
1915......	5,180	83.49	175	71.75	5,355	83.05	621	92.56	228	122.38	849	99.04	1,858	177.08	347	258.76	2,205	186.32	781	136.51
1914......	5,437	89.95	96	52.52	5,533	88.85	376	60.14	161	93.66	537	67.37	1,464	174.79	439	233.76	1,903	185.60	273	135.82
1913......	4,965	84.08	180	106.13	5,145	84.70	411	80.87	151	144.08	562	91.68	1,320	140.77	352	194.37	1,672	149.45	157	196.99

TABLE No. 107.—*Admissions from venereal disease, by camps, with ratios per 1,000 mean strength, United States enlisted men, for September, October, November, and December, 1917.*

Camps.	Admissions from venereal disease.[1]	Ratio per 1,000 mean strength.	Camps.	Admissions from venereal disease.[1]	Ratio per 1,000 mean strength.
Travis, Tex	1,950	229.39	Greene, N. C	766	90.71
Kearney, Cal	1,163	214.77	Bowie, Tex	655	89.62
Lewis, Wash	2,216	211.15	Funston, Kans	884	86.36
Sherman, Ohio	1,605	178.29	MacArthur, Tex	604	80.48
Dix, N. J	1,042	164.17	Cody, N. Mex	580	78.07
Gordon, Ga	1,237	163.41	Lee, Va	606	77.92
Meade, Md	1,143	156.23	Shelby, Miss	531	73.64
Wheeler, Ga	855	148.53	Sheridan, Ala	399	67.58
Taylor, Ky	947	142.25	Mills, N. Y	905	62.19
Logan, Tex	1,190	130.77	McClellan, Ala	568	58.64
Custer, Mich	697	129.26	Grant, Ill	389	55.80
Dodge, Iowa	809	127.60	Hancock, Ga	456	51.44
Pike, Ark	963	113.00	Upton, N. Y	353	47.44
Doniphan, Okla	772	108.55	Jackson, S. C	377	46.74
Sevier, S. C	765	106.94	Devens, Mass	365	43.55
Beauregard, La	363	91.77			
Wadsworth, S. C	835	90.90	Total	26,990	108.14

[1] Includes syphilis, chancroid, and gonococcus infection.

TABLE No. 108.—*Admissions from venereal disease, by State of occurrence (excluding camps), with ratios per 1,000 mean strength, United States enlisted men, 1917.*

State of occurrence.[1]	Admissions from venereal disease.[2]	Ratio per 1,000 mean strength.	State of occurrence.[1]	Admissions from venereal disease.[2]	Ratio per 1,000 mean strength.
Connecticut	109	463.83	Arizona	861	90.50
South Carolina	607	398.04	New Hampshire	60	90.22
Kentucky	995	361.95	Nevada	6	85.71
Iowa	559	275.51	Colorado	342	84.46
Alabama	861	274.21	Nebraska	163	84.29
Kansas	1,283	229.15	Indiana	505	79.31
Ohio	1,186	227.07	Mississippi	180	77.86
Maryland	494	205.06	Rhode Island	172	74.74
Georgia	3,167	181.34	Maine	209	74.67
Washington	1,353	177.48	California	1,822	67.04
Texas	8,633	150.28	District of Columbia	504	66.16
Oklahoma	400	132.71	Massachusetts	635	65.39
Tennessee	144	126.66	Oregon	100	61.09
Illinois	715	122.37	Alaska	40	59.27
Louisiana	221	117.92	Idaho	21	57.53
Missouri	579	115.73	West Virginia	24	57.41
North Carolina	121	114.26	Delaware	59	48.24
Arkansas	254	113.04	Montana	64	46.48
New Jersey	1,063	112.19	Utah	139	45.28
Virginia	1,174	104.31	Vermont	171	44.32
Wyoming	285	102.74	Florida	176	44.21
Minnesota	513	102.67	Pennsylvania	743	43.15
Wisconsin	486	98.42	South Dakota	7	40.70
New York	2,982	96.35	Others	474	802.36
New Mexico	596	92.09			
Michigan	319	91.61	Total	36,576	118.34

[1] North Dakota included in others.

[2] Includes syphilis, chancroid, and gonococcus infection.

TABLE No. 109.—*Table giving number of men examined from each State and number found with venereal disease, also percentage of total men examined to number with venereal disease.*

State.	Total examined from State.	Number with gonorrhea.		Number with syphilis.		Number with chancroid.		Total venereal disease.	Per cent of men with venereal diseases to total examined from State.
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
Alabama	16,291	1,008	6.19	358	2.20	34	0.21	1,400	8.60
Alaska	106	1	.94	....	....	....	....	1	.94
Arizona	3,894	107	2.75	20	.51	2	.05	129	3.31
Arkansas	10,284	117	1.14	54	.53	6	.06	177	1.72
California	35,839	338	.94	75	.21	6	.02	419	1.17
Colorado	6,774	137	2.02	22	.32	2	.03	161	2.38
Connecticut	13,653	170	1.25	46	.34	4	.03	220	1.61
Delaware	1,909	38	1.99	13	.68	1	.05	52	2.73
District of Columbia	4,504	87	1.93	6	.13	4	.09	97	2.15
Florida	5,982	392	6.55	116	1.94	14	.23	522	8.73
Georgia	20,936	900	4.30	209	1.00	52	.25	1,161	5.55
Idaho	4,078	26	.64	3	.07	3	.07	32	.78
Illinois	70,450	1,449	2.06	206	.29	48	.07	1,703	2.42
Indiana	23,444	620	2.64	135	.58	21	.09	776	3.31
Iowa	20,761	293	1.41	38	.18	5	.02	336	1.62
Kansas	9,970	216	2.17	38	.38	1	.01	255	2.56
Kentucky	15,875	405	2.55	183	1.15	7	.04	595	3.75
Louisiana	12,752	320	2.51	74	.58	19	.15	413	3.24
Maine	3,344	43	1.29	16	.48	1	.03	60	1.79
Maryland	9,896	301	3.04	15	.15	10	.10	326	3.29
Massachusetts	30,167	381	1.26	116	.38	3	.01	500	1.66
Michigan	42,082	669	1.59	130	.31	14	.03	813	1.93
Minnesota	27,152	359	1.32	59	.22	13	.05	431	1.59
Mississippi	8,803	245	2.78	96	1.09	4	.05	345	3.92
Missouri	25,177	655	2.60	198	.79	27	.11	880	3.50
Montana	11,780	78	.66	22	.19	3	.03	103	.87
Nebraska	10,930	142	1.30	36	.33	3	.03	181	1.66
Nevada	1,443	17	1.18	2	.14	1	.07	20	1.39
New Hampshire	2,276	3	.13	3	.13	....	....	6	.26
New Jersey	30,451	404	1.33	46	.15	19	.06	469	1.54
New Mexico	2,826	70	2.48	5	.18	1	.04	76	2.69
New York	89,339	1,331	1.49	237	.27	38	.04	1,606	1.80
North Carolina	15,170	432	2.85	137	.90	17	.11	586	3.86
North Dakota	6,621	99	1.50	17	.26	2	.03	118	1.78
Ohio	53,813	1,253	2.33	239	.44	74	.14	1,566	2.91
Oklahoma	19,864	716	3.60	124	.62	51	.26	891	4.49
Oregon	3,900	19	.49	4	.10	....	....	23	.59
Pennsylvania	78,695	1,748	2.22	197	.25	69	.09	2,014	2.56
Rhode Island	3,958	80	2.02	24	.61	....	....	104	2.63
South Carolina	10,026	665	6.63	74	.74	60	.60	799	7.97
South Dakota	4,013	34	.85	2	.05	1	.02	37	.92
Tennessee	14,691	461	3.14	79	.54	13	.09	553	3.76
Texas	35,852	1,438	4.01	142	.40	77	.21	1,657	4.62
Utah	1,498	32	2.14	4	.27	1	.07	37	2.47
Vermont	2,079	28	1.35	3	.14	....	....	31	1.49
Virginia	18,664	1,336	7.16	186	1.00	62	.33	1,584	8.49
Washington	13,523	97	.72	19	.14	3	.02	119	.88
West Virginia	12,610	414	3.28	59	.47	31	.25	504	4.00
Wisconsin	18,614	196	1.05	20	.11	7	.04	223	1.20
Wyoming	1,932	14	.72	5	.26	....	....	19	.98
No State	101,901	2,665	2.62	509	.50	107	.10	3,281	3.22

TABLE No. 110.—*Partial list of causes of discharge from draft.*[1]

Defect.	Number.	Defect.	Number.
Ankylosis, bony of, joint	7	Defective or deficient teeth	131
Ankylostomiasis	10	Underweight	78
Arthritis	12	Overweight	4
Asthma	16	Defective hearing	15
Astigmatism	106	Loss of one or more fingers	8
Cataract	15	Constitutional psychopathic states	12
Defective vision (due to error of refraction)	387	Dementia praecox	21
Conjunctivitis, granular (trachoma)	60	Endocarditis	27
Epilepsy	78	Pericarditis	4
Exopthlamic goiter	35	Cardiac diseases	17
Gonococcus infection	11	Infectious diseases	11
Hemorrhoids	15	General diseases	16
Hernia	410	Nervous diseases, other	32
Inebriety, drug addiction	62	Mental diseases, other	3
Mental deficiency	44	Diseases of the eye, other	22
Myocarditis	21	Diseases of the ear, other	4
Myopia	478	Diseases of the nasal fossae	6
Osteomyelitis	14	Diseases of the circulatory system, other	12
Otitis media	392	Diseases of the respiratory system, other	17
Pes planus	109	Diseases of the digestive system, other	34
Pleurisy	11	Diseases of the genito urinary system (nonvenereal)	28
Psychoneuroses	11	Diseases of the skin	26
Psychosis	15	Diseases of the bones and organs of locomotion, other	59
Syphilis	85	Malformation and ill-defined diseases	25
Tuberculosis	217	Abnormalities of upper extremities	5
Valvular heart disease	149	Abnormalities of lower extremities	12
Varicose veins	60	All other	3
Dental disease	12		
Defective physical development	63		
Hyperopia	79		
Strabismus	15	Total	3,631

[1] Men held at camp a few days before discharged.

IV. CEREBROSPINAL MENINGITIS.

The data on meningitis were presented under the diagnostic terms: "Meningitis, cerebrospinal (epidemic)," and "meningitis, other than epidemic or tuberculous." The latter is distinguished as "simple."

1. SIMPLE MENINGITIS.

The following table gives the distribution of admissions, discharges and deaths, by Army, and by color, in the United States and Europe.

TABLE No. 111.—*Simple meningitis.*

	White.				Colored.				Total white and colored.
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	
Admissions:									
United States	16	26	11	53			3	3	53
Europe	1	2		3					6
Discharges:									
United States	1	4		5					5
Europe									
Deaths:									
United States	5	10	7	22			1	1	23
Europe	1			1					1

Of the above cases of simple meningitis, 6 were complications of neasles, and of these 1 recovered and 5 died. One other is given as complication with mastoiditis, following otitis media; that also lied. Two others followed lobar pneumonia, in turn a complication f measles; they both died. Two others followed broncho-pneu- nonia, complicating measles; they also died. As complicating rimary lobar pneumonia, there were 12 cases, of which 1 recovered, 0 died, and 1 was remaining at the end of the year. Altogether, as he table shows, a large proportion of those who fell ill of simple neningitis died, namely, 24 out of 59 cases, or about 41 per cent.

istribution of admissions of cerebrospinal meningitis, Army in the United States, by States from which each National Army camp drew its troops. Charted in four grades. The darkest areas indicate greatest resistance to (least incidence of) the disease. The order of States, together with the limits of percentage of incidence of the disease represented in each grade of shading, is as follows: 1. 0–1: Dix, Upton, Devens, Custer, Grant. 2. 1.1–3.50: Lee, Meade, Sherman, Lewis, Gordon, Dodge, Travis, Taylor. 3. 3.50–3.75: Funston. 4. 3.75+: Pike, Jackson.

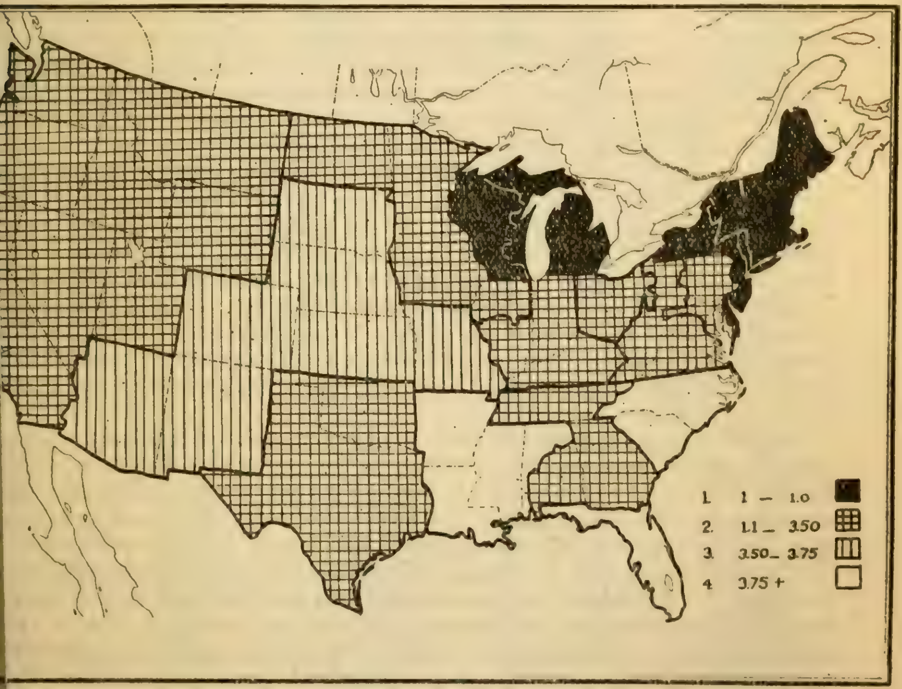

CHART No. 63.

2. EPIDEMIC CEREBROSPINAL MENINGITIS.

During the period of training soldiers in the United States in 1917 here were 971 admissions on account of cerebrospinal meningitis. addition, there were 66 cases in the Army in Europe. Of the 971 ses in the United States, 302, or 31.1 per cent, died; of the cases in urope, 19 died. Of all primary infectious diseases it had the highest ortality rate. Besides the cases of primary cerebrospinal meningitis here were 5 fatal cases in which it was complicated by broncho- eumonia; in 4 by lobar pneumonia and in 1 case by acute diffuse ritonitis.

3. EPIDEMIC MENINGITIS BY CAMPS.

Tables 52 and 54 give the statistics for cerebrospinal meningitis in the larger camps. There were 600 cases altogether, and only Camp Dix in New Jersey and MacArthur in Texas were free from the disease Several camps containing northern troops (Upton, N. Y., Mills, N. Y. Wadsworth, S. C., and Devens, Mass.) had only 1, 2, or 3 cases. On the other hand, certain camps had or were threatened with an epidemic of this dread disease. The severest outbreak was at Camp Jackson, S. C. There were in November 20 admissions of white patients and in December of 98 white and 8 colored. Of these 126 cases, 29 per cent died. For origin and history of the epidemic see the description of Camp Jackson (pages 78–81). The camp surgeon is inclined to think that a number of these cases were complications of measles.

The next most important outbreak was at Camp Beauregard, La. The first admissions were in early November and 3 to 5 were admitted each week until in the last week of December 28 cases were reported and then the epidemic gradually faded away. The mortality was 3 per cent to end of the year with a number remaining in the hospital By quarantine and search for carriers the epidemic was brought unde control. The next most serious outbreak was at Camp Funston, whos troops came from the Great Plains region, including a notorious meningitis center. The outbreak started in October with 16 admission during the month. There were 21 cases in November and then th disease practically disappeared. Of the cases, 11, or 29 per cent died. In Camp Pike the first cases of meningitis appeared in October. They were traced to a contingent that came from Camp Funston There were 32 cases in this camp and 7 deaths. The epidemic decreased toward the end of the year. It is interesting to note tha Camp Beauregard attributed the origin of its epidemic to a contingent from Camp Pike; hence the cases at Beauregard also traced bac to Camp Funston.

Of the above mentioned cases, a number were of the fulminatin type in which death occurred within half a day of the first symptoms Serum treatment was used with varying success. A striking circumstance is the fact that rarely did two cases come from one organization, indicating that the susceptible were rather sparsely scattered.

The distribution of the States of occurrence of meningitis patien is striking. Practically no cases came into the National Guard cam from the northern tier of States. It was the southern States tha supplied Camps Beauregard, Bowie, Doniphan, and Kearney wit their susceptible troops. As in the National Army camps, there we practically no cases from the northeastern States and few from an of the northern States. But immunity was much less common in th South and Southwest (Chart No. 63). Finally, if State of nativity i considered, it appears again that the northern tier of States have co tributed to the Army practically no sons who became victims of th cerebrospinal infection. The great home of the susceptible is n sparsely settled States, merely (for soldiers in Utah and Wyoming a practically immune), but natives of the Southeastern States (includin Kansas and Nebraska). It must be admitted that all of the factors d termining susceptibility of a population at 20 to 30 years are n known, but it is probable that the naturally susceptible are ea weeded out or immunized in the more densely settled regions.

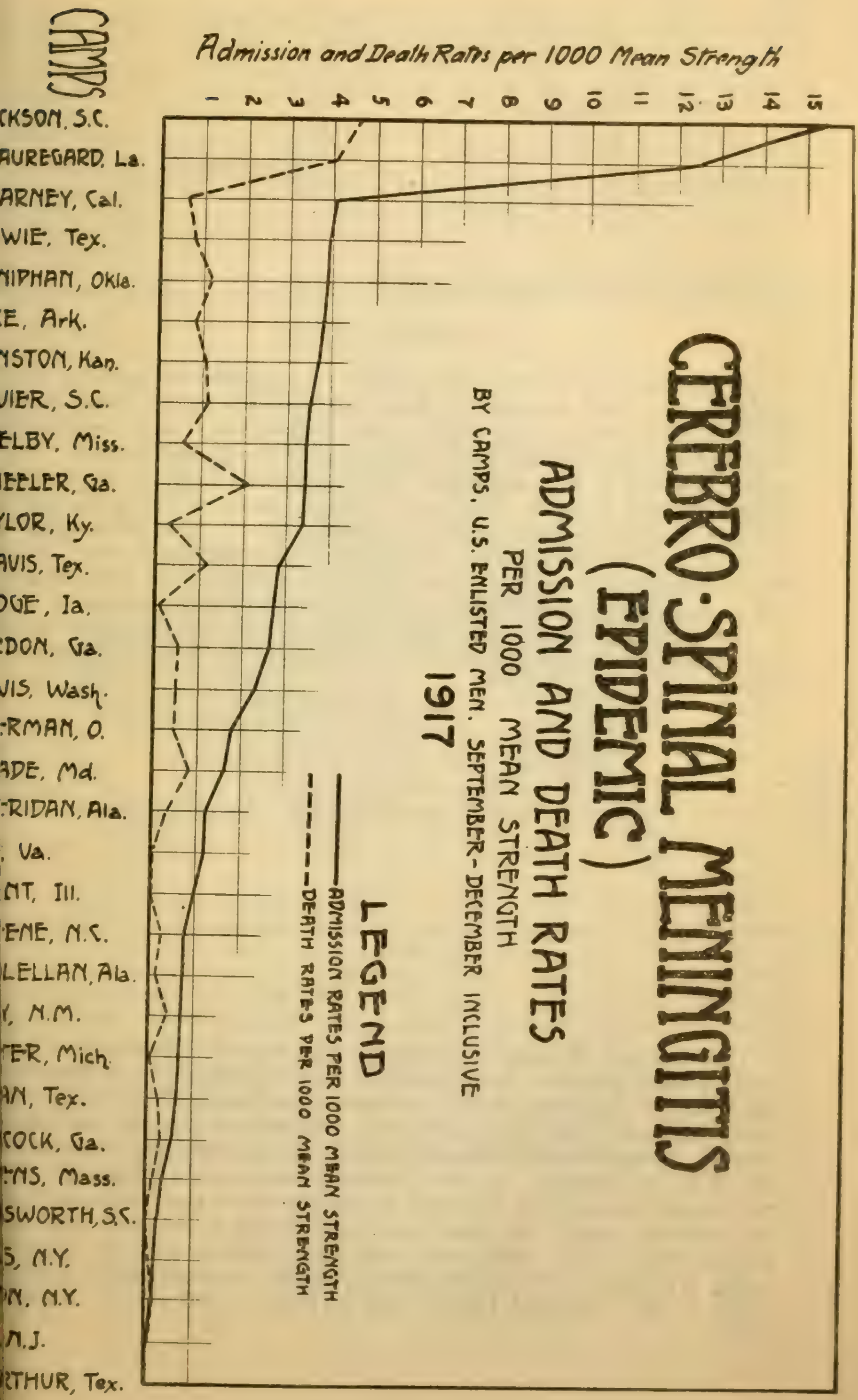
CEREBRO-SPINAL MENINGITIS
(EPIDEMIC)
ADMISSION AND DEATH RATES
PER 1000 MEAN STRENGTH
BY CAMPS, U.S. ENLISTED MEN. SEPTEMBER-DECEMBER INCLUSIVE
1917
LEGEND
ADMISSION RATES PER 1000 MEAN STRENGTH
DEATH RATES PER 1000 MEAN STRENGTH
Admission and Death Rates per 1000 Mean Strength
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
CAMPS
CKSON, S.C.
AUREGARD, La.
ARNEY, Cal.
WIE, Tex.
NIPHAN, Okla.
E, Ark.
NSTON, Kan.
VIER, S.C.
ELBY, Miss.
EELER, Ga.
LOR, Ky.
AVIS, Tex.
DGE, Ia.
DON, Ga.
VIS, Wash.
RMAN, O.
ADE, Md.
RIDAN, Ala.
, Va.
NT, Ill.
ENE, N.C.
LELLAN, Ala.
, N.M.
ER, Mich.
AN, Tex.
COCK, Ga.
NS, Mass.
SWORTH, S.C.
S, N.Y.
N, N.Y.
N.J.
RTHUR, Tex.

TABLE No. 112.—*Complications with fatal cases of cerebrospinal meningitis epidemic, enlisted men in United States, 1917.*

Primary disease.	Complications.	Number of deaths.
Cerebrospinal meningitis, epidemic	Broncho-pneumonia Peritonitis, acute, diffuse Pneumonia, lobar	5 1 4
Total		10

Total admissions for cerebrospinal meningitis, epidemic 971
Total deaths for cerebrospinal meningitis, epidemic 302

V. SCARLET FEVER.

No epidemics of scarlet fever of any consequence occurred in 1917. Among the total admissions from all diseases those from scarlet fever ranked twenty-third in point of frequency and constituted only 0.4 per cent of the total admissions in the United States. As a cause of death it was somewhat more important in point of position, being seventh in rank, but only 1.61 per cent of the total deaths from disease are attributable to scarlet fever. The total number of days lost by the Army in hospitals or at quarters in the United States was 45,714 or 1.01 per cent of the total days lost from disease. As a cause of noneffectiveness it was exceeded by 20 diseases.

The following table gives the admission, discharges, and deaths due to scarlet fever by Army and by color in the United States and Europe.

TABLE No. 113.—*Scarlet fever.*

	White.				Colored.				Total white and colored.
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	
Admissions:									
United States	1,042	494	419	1,955	3		8	11	1,966
Europe	52	107	8	167					167
Discharges:									
United States	3			3					3
Europe									
Deaths:									
United States	27	3	18	48					48
Europe	2	6		8					8

The number of cases is so small that the distribution by Army and by color is not to be regarded as very significant. As the above data stand, however, it will be seen that scarlet fever was much more frequent and fatal among the white than among the colored troops. Considerable differences exist in the relative frquency in the different armies. In the United States scarlet fever was twice as frequent among the Regulars as among either the National Guard or National Army, the rate per 1,000 being 5.37, 2.57, and 2.63 respectively. The death rate also was higher among Regulars being 0.14 per 1,000 in the Regular Army in contrast to 0.02 per 1,000 in the National Guard and 0.11 per 1,000 in the National Army.

On the other hand the ratios in the United States differ greatly from those in Europe. The rate of admission for the Regular Army drops from 5.37 per 1,000 in the United States to 1.51 per 1,000 in Europe while that for the National Guard increases from 2.57 to 11.26 per 1,000 and that for the National Army from 2.63 to 8.13 per 1,000. The rate for all armies is slightly higher in Europe (3.66 per 1,000) than in the United States (3.52 per 1,000). The changes in the death rates in the United States and in Europe for the different armies are similar to the changes in rate of admissions.

Distribution of admission to scarlet fever, Army in United States by States from which each National Army camp drew its troops. Charted in four grades. The darkest areas indicate greatest resistance to (least incidence of) the disease. The order of States, together with the limits of percentage of occurrence of the disease represented by each grade of shading, is as follows: 1.0–0.3. Gordon, Taylor, Lee, Jackson, Devens, Upton. 2. 0.3–1.0. Funston, Grant, Travis. 3. 1–5. Dix, Meade, Sherman, Custer, Dodge. 4 over 5. Pike, Lewis.

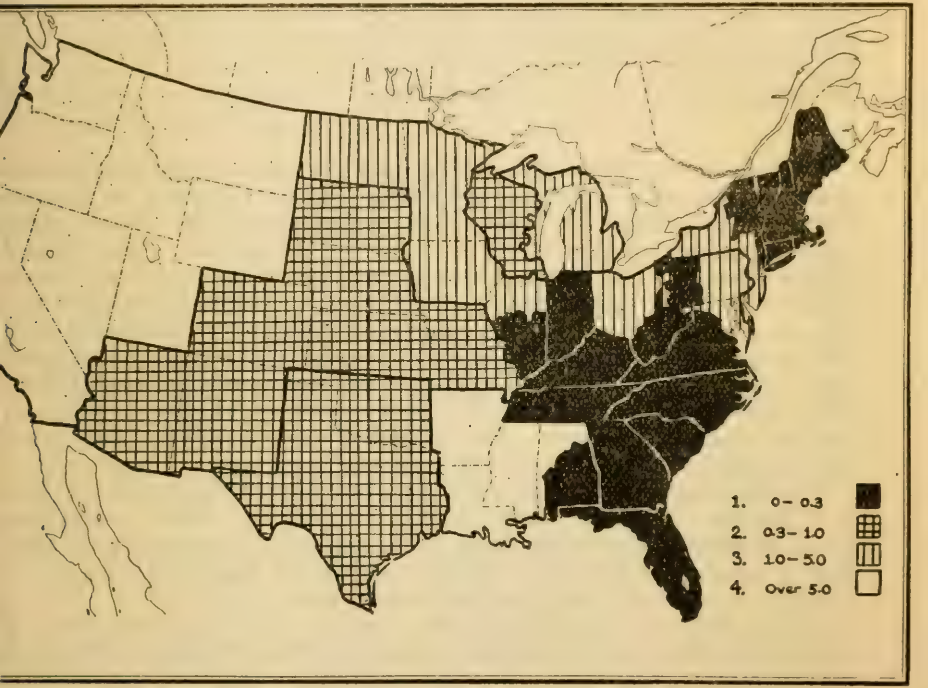

CHART NO. 65.

Below are tables showing the rate of admissions from scarlet fever per 1,000 mean strength in the National Army and National Guard camps.

TABLE No. 114.—*Scarlet fever by Camps.*

National Guard camps.	Rate per 1,000 mean strength.	National Army camps.	Rate per 1,000 mean strength.
MacArthur	6.66	Pike	34.26
Kearney	5.72	Lewis	8.67
Doniphan	3.94	Dodge	3.63
Cody	2.56	Custer	2.04
Greene	1.78	Sherman	1.67
McClellan	1.55	Meade	1.37
Sheridan	1.02	Dix	1.26
Wheeler	.35	Travis	.82
Bowie	.27	Grant	.43
Hancock	.23	Funston	.39
Logan	.22	Upton	.27
Shelby	.14	Devens	.24
Wadsworth	.11	Jackson	.12
Sevier	.00	Lee	.00
Beauregard	.00	Taylor	.00
		Gordon	.00

Only in camps Pike and Lewis, both National Army camps, did scarlet fever reach sufficient proportions to be regarded as an epidemic. Camp Pike leads all other camps strikingly. There were 111 admissions in November and 164 in December. The spread of the disease in this instance was in part due to its mild type, which rendered its diagnosis difficult, and in part due to inefficient quarantine measures. The men were quartered in squad rooms containing 120 men, which made it difficult to segregate the infected and exposed individuals. A small epidemic occurred also in Camp Lewis. Eleven admissions were recorded in November and 80 in December, but no deaths occurred. The spread of the disease in this camp was in part due to cross infection in the hospitals.

The distribution of scarlet fever by State of nativity has no obvious significance. However, the camps having the lowest admission rates quarter men coming from the more densely populated States. But a number of the more sparsely populated Southern States were among those having very low admission rates.

Scarlet fever as a primary cause was one of the lesser causes of deaths in 1917. As in the case of many other diseases, however, it served in many cases to lower the resistance of the patient to other and complicating disease, the various complications after proving fatal.

Of the 48 deaths attributable to scarlet fever in the United States 34 were complicated by other diseases as follows:

TABLE No. 115.—*Complications with fatal cases of scarlet fever.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Epistaxis	1	Valvular heart disease mitral insufficiency	1
Lymphadenitis	1	Pneumonia, broncho	20
Myocarditis	1		
Nephritis, acute	2	Total	34
Pneumonia, lobar	8	Total deaths from scarlet fever	48

Here again broncho and lobar pneumonia are the most important complicating diseases.

VI. TUBERCULOSIS.

Though tuberculosis heads the list of causes of death by disease in the civilian population, in an Army that has been recently examined for it and from which it has been largely eliminated, naturally it will not be a disease of major importance. Yet, despite all precautions, there were in the United States troops during 1917, 7,274 admissions for tuberculosis of the lungs, giving a mean annual rate among whites of 12.52 and among colored of 33.92 (Table 116). Here, as elsewhere, the morbidity rate for tuberculosis is much higher among colored than white troops. The admission rate for white troops in Europe was relatively low in 1917, namely, 3.54. For some reason that is not quite clear the death rate of the National Guard was 50 per cent greater than that of the National Army; but this may be merely a statistical result, owing to the different ways in which the strength of the National Guard and the National Army respectively are distributed through the months.

TABLE NO. 116.—*Tuberculosis of lungs, miliary, acute, and others, United States and Europe.*

	White.				Colored.				Total white and colored.
	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	
Admissions:									
United States	10.64	16.00	10.61	12.52	21.25	42.91	42.28	33.92	13.02
	2,063	3,073	1,692	6,828	112	62	272	446	7,274
Europe	3.34	4.00	6.10	3.54	22.13	....	....	22.13	3.83
	115	38	6	159	16	....	....	16	175
Discharges:									
United States	6.17	9.88	2.67	6.45	11.57	22.15	9.79	11.86	6.58
	1,197	1,897	426	3,520	61	32	63	156	3,676
Europe	.38	.63	1.02	.45	....	....	....	......	.44
	13	6	1	20	....	....	....	......	20
Deaths:									
United States	.21	.20	.11	.18	.76	2.08	1.40	1.22	.20
	41	39	18	98	4	3	9	16	114
Europe	.09	.42	....	.16	....	....	....	......	.15
	3	4	....	7	....	....	....	......	7

Tuberculosis constituted a cause of 4.1 per cent of all deaths from disease in the Army enlisted men in 1917. For the corresponding ages of life in the registration area of the United States tuberculosis constituted 34.7 per cent of all deaths. The contrast between 4.1 and 34.7 per cent indicates in a rough way the efficiency of the selective physical examination.

The number of admissions varied a good deal in soldiers born in the various States (Table 117). This is of course partly dependent upon the number of troops derived from the different States and partly upon the conditions (of the constitution of the population, or other) in each State. Assuming that the number of natives of each State is roughly proportioned to the male population, 20 to 29 years, census of 1890, the ratio of admissions to such male population has been calculated and the States arranged in order thereof (Table 117). There are a good many objections to this procedure (such as, that the quota going into the Army from the various States was not strictly proportioned to the population, etc.), but it constitutes a rough attempt to get rid of the varied strength of the Army from different States of birth.

The table indicates that the States with the high ratios for tuberculosis in the Army are: (1) Certain States of the Southwest much frequented by tubercular patients. Examples are: New Mexico, with the highest rate, 5.39 per 1,000;[1] Arizona, 3.20; California, 1.93; Colorado, 1.77. Probably Texas 2.29 and Florida 1.23 belong in this category. (2) Southern States, because they have a large proportion of colored people, have a much heavier death rate than northern. Here belong Alabama, 1.41; Mississippi, 1.35; and Georgia, 1.26. Some of the States with lowest percentage of deaths in the Army are Utah (not a refuge for tubercular patients); Montana, 0.38; and West Virginia, 0.64. Since the lowest rate is less than one-tenth the highest it is clear that constitution of the population and conditions in a State play a great rôle in determining the proportion of its sons that are admitted to sick report in the Army for tuberculosis. It is interesting to note that at the time of the last mortality census (1915) California and Colorado had high mortality rates and Utah the lowest of all. Thus the constitutional

Distribution of admissions to tuberculosis, Army in United States, by State of nativity of enlisted men. Charted in four grades. The darkest areas indicate the highest incidence of the disease. 1. 6-1.5, New Mexico, Arizona, Texas, California, Colorado, Tennessee. 2. 1.4-1.0, Illinois, New Hampshire, Idaho, Alabama, Kentucky, Mississippi, Arkansas, Georgia, Florida, Virginia, Missouri, Maine, North Carolina, Kansas, Wisconsin. 3. 099-0.60, Iowa, Oregon, Connecticut, South Carolina, Indiana, Louisiana, Michigan, Oklahoma, District of Columbia, Minnesota, Pennsylvania, Vermont, New York, North Dakota, West Virginia, Ohio, Massachusetts, New Jersey. 4. 0.59-0.25, Nebraska, Wyoming, Washington, Maryland, Rhode Island, South Dakota, Montana, Delaware, Utah.

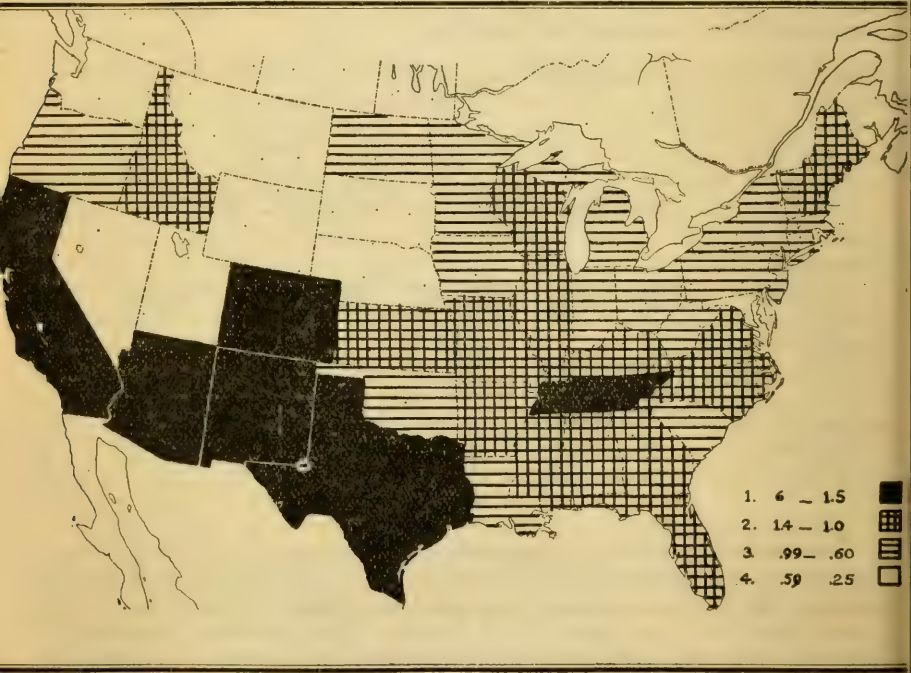

CHART NO. 66.

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[1] These rates can not be used for comparison with rates in civil life. They are simply cases of tuberculosis born in the State divided by the male population in State, 20 to 29 years of age, 1890.

resistance to tuberculosis of the population of States is an attribute that persists for at least a generation.

The admission rate from tuberculosis varied greatly by camps in proportion to their mean strength. Thus Camp Kearney, Cal., led in this respect (Table 49). This is readily explained in view of the susceptibility of the men who are native to the States from which Camp Kearney draws, including New Mexico, Arizona, and California. These are States that stand first, second, and fourth, respectively, in mortality from tuberculosis in civil life. They are States which have long been resorted to by victims of chronic pulmonary tuberculosis. Their descendants probably carry a tubercular diathesis. Camp MacArthur, Tex., came second. This drew from Wisconsin and Michigan, States which have not an exceptional amount of tuberculosis. Among camps with a low rate of admission from tuberculosis were Upton, 11.15; Wadsworth, 7.18; and Dix, 8.82; which drew from prevailingly urban populations.

TABLE No. 117.—*Admissions for tuberculosis*[1] *by State of nativity with ratio to civil population 20 to 29 years (1890 census).*

	Admissions for tuberculosis.	Male population, 20 to 29 years.	Ratio of admissions to male population, 20 to 29 years.
New Mexico	82	15,195	5.39
Arizona	25	7,824	3.20
Texas	251	194,664	2.29
California	244	141,566	1.93
Colorado	112	63,297	1.77
Tennessee	220	144,711	1.52
Illinois	329	384,600	1.49
New Hampshire	50	34,233	1.46
Idaho	15	10,366	1.45
Alabama	171	120,814	1.41
Kentucky	224	160,474	1.40
Mississippi	136	101,146	1.35
Arkansas	123	92,902	1.32
Georgia	188	149,067	1.26
Florida	43	35,019	1.23
Virginia	144	125,428	1.15
Missouri	281	249,884	1.12
Maine	57	55,613	1.08
North Carolina	124	116,970	1.06
Kansas	135	127,903	1.05
Wisconsin	157	152,042	1.03
Iowa	167	179,990	.93
Oregon	35	37,795	.93
Connecticut	63	71,866	.88
South Carolina	73	85,702	.85
Indiana	169	198,813	.85
Louisiana	75	90,880	.83
Michigan	162	198,693	.81
Oklahoma	48	6,474	.74
District of Columbia	15	20,831	.72
Minnesota	99	138,815	.71
Pennsylvania	346	503,143	.69
Vermont	19	28,085	.68
New York	384	572,142	.67
North Dakota	14	21,524	.65
West Virginia	42	66,095	.64
Ohio	204	331,940	.62
Massachusetts	138	221,654	.62
New Jersey	84	135,842	.62
Nebraska	69	116,671	.59
Wyoming	7	11,987	.58
Washington	34	58,225	.58
Maryland	50	88,879	.56
Rhode Island	18	32,780	.55
South Dakota	18	33,378	.54
Montana	10	26,023	.38
Delaware	5	15,468	.32
Utah	6	20,568	.29

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[1] Chronic pulmonary tuberculosis only.

TABLE No. 118.—*Admissions from tuberculosis, by camps, with ratios per 1,000 mean strength, United States enlisted men, for September, October, November, and December, 1917.*

Camps.	Admissions from tuberculosis.	Ratio per 1,000, mean strength.	Camps.	Admissions from tuberculosis.	Ratio per 1,000, mean strength.
Kearney, Cal	853	157.53	Doniphan, Okla	79	11.11
MacArthur, Tex	191	25.45	Bowie, Tex	81	11.08
Dodge, Iowa	156	24.61	Travis, Tex	93	10.94
Taylor, Ky	146	21.93	Wheeler, Ga	61	10.60
Pike, Ark	158	18.54	Sevier, S. C	70	9.78
Gordon, Ga	139	18.36	Shelby, Miss	69	9.57
Logan, Tex	137	15.05	McClellan, Ala	88	9.09
Devens, Mass	124	14.80	Lee, Va	70	9.00
Beauregard, La	54	13.65	Sheridan, Ala	53	8.98
Sherman, Ohio	111	12.33	Dix, N. J	56	8.82
Lewis, Wash	128	12.20	Hancock, Ga	67	7.56
Meade, Md	88	12.03	Wadsworth, S. C	66	7.18
Custer, Mich	64	11.87	Funston, Kans	54	5.27
Grant, Ill	82	11.76	Greene, N. C	29	3.43
Jackson, S. C	92	11.41	Mills, N. Y	39	2.68
Cody, N. Mex	83	11.17			
Upton, N. Y	83	11.15	Total	3,664	14.68

TABLE No. 119.—*Admissions from tuberculosis by State of occurrence (excluding camps), with ratios per 1,000 mean strength, United States enlisted men, 1917.*

State of occurrence.	Admissions from tuberculosis.[1]	Ratio per 1,000 mean strength.	State of occurrence.	Admissions from tuberculosis.[1]	Ratio per 1,000 mean strength.
Connecticut	48	204.26	Arizona	39	4.16
Iowa	62	30.56	Pennsylvania	64	3.70
South Carolina	32	20.98	Vermont	14	3.62
Virginia	224	19.90	Alabama	11	3.50
Wyoming	53	19.11	Colorado	14	3.46
New Mexico	122	18.85	Missouri	17	3.40
Kansas	98	17.50	Wisconsin	15	3.04
Georgia	290	16.61	New Hampshire	2	3.01
Minnesota	83	16.61	North Carolina	3	2.83
Nevada	1	14.29	Idaho	1	2.74
Massachusetts	134	13.80	Tennessee	3	2.64
Kentucky	35	12.73	Oregon	4	2.44
Indiana	77	12.09	West Virginia	1	2.39
Utah	23	7.49	Ohio	12	2.30
Illinois	42	7.19	Michigan	8	2.30
California	183	6.73	Arkansas	5	2.23
New York	204	6.59	Montana	3	2.18
Oklahoma	18	5.97	Rhode Island	5	2.17
New Jersey	55	5.80	Mississippi	3	1.30
District of Columbia	42	5.51	Louisiana	2	1.07
Texas	312	5.43	Delaware	1	.82
Nebraska	10	5.17	Maine	2	.71
Maryland	12	4.98	Others	47	79.39
Washington	34	4.46			
Alaska	3	4.44	Total	2,473	8.00

[1] Chronic pulmonary tuberculosis only.

TABLE No. 120.—*Complications of fatal cases of tuberculosis, enlisted men in United States, 1917.*

Primary disease.	Complications.	Number of deaths.
Tuberculosis of lungs	Cardiac dilatation	1
	Endocartis, chronic	1
	Hemorrhage	1
	Laryngitis	1
	Meningitis tuberculous	1
	Other diseases of the larynx	1
	Pleurisy, fibrinous	1
	Pleurisy, suppurative	1
	Pneumonia, lobar	3
Acute miliary tuberculosis	Nephritis, chronic, interstitial.	1
Total		12

Total admissions for tuberculosis	7,274
Total deaths from tuberculosis	114

VII. MUMPS.

Mumps was one of the commonest of the infectious diseases prevailing in our Army camps in 1917. In fact, it was one of the very few diseases which reached greater proportions in 1917 than in the corresponding initial period of our Civil War. Among the enlisted men in the United States mumps was a cause for admission to the sick report in 21,725 cases, or 4.39 per cent of the total admissions were for mumps. Gonococcus infection, measles, diseases of the tonsils, bronchitis, and influenza were the only causes having higher rates. Among our troops in Europe mumps accounted for 11.03 per cent of the total admissions to the sick report, being outranked only by bronchitis and influenza.

For the most part, the mumps that occurred was of a mild type and few deaths resulted from it. The most frequent complication reported was orchitis. No discharges from any branch of the service were attributed to mumps.

The seriousness and importance of this otherwise relatively unimportant disease lie in the large number of days lost to the service on account of it. Among the enlisted men in the United States 5.62 per cent of the total number of days lost on account of disease were due to mumps. Measles and gonococcus infection alone were more serious from this point of view. Among our troops stationed in Europe mumps leads all other diseases as a cause of lost time and accounted for 13.57 per cent of the total number of days lost.

Below is a table showing the number of admissions and deaths due to mumps by armies and by color in the United States and Europe.

TABLE No. 121.—*Mumps, enlisted men, 1917.*

	White.				Colored.				Total, white and colored.
	Regular Army.	National Guard.	National Army.	Total.	Regular Army.	National Guard.	National Army.	Total.	
Admissions:									
United States	6,760	10,109	4,366	21,235	86	175	229	490	21,725
Europe	1,887	1,373	72	3,332	415				3,747
Deaths:									
United States	1	3	3	7	1			1	8
Europe		1		1					1

The above table of admissions becomes more significant if we substitute the ratio per 1,000 men for the absolute numbers.

Distribution of admissions to mumps, Army in United States, by State of nativity of enlisted men. Charted in four grades. The darkest areas indicate greatest resistance to (least incidence of) the disease. The order of States, together with the limits of percentage of incidence of the disease represented by each grade of shading, is as follows: 1. 0.6, R. I., N. Y., N. J., Conn., N. H., Mass., Pa., Nev., Md., D. C., Me., Del. 2. 0.6–1.0, Mont., Cal., Wash., Ohio, Ill., Colo., Ariz., N. Mex., Vt., Minn., Wis., N. Dak. Wyo., S. Dak., Oreg., Idaho, Utah. 3. 1.0–6.0, Mich., Ind., La., Mo., W. Va., Okla., Nebr., Iowa, Kans., N. C., S. C., Tenn. Ky. 4. 6.0+, Tex., Ark., Va., Fla., Miss., Ala., Ga.

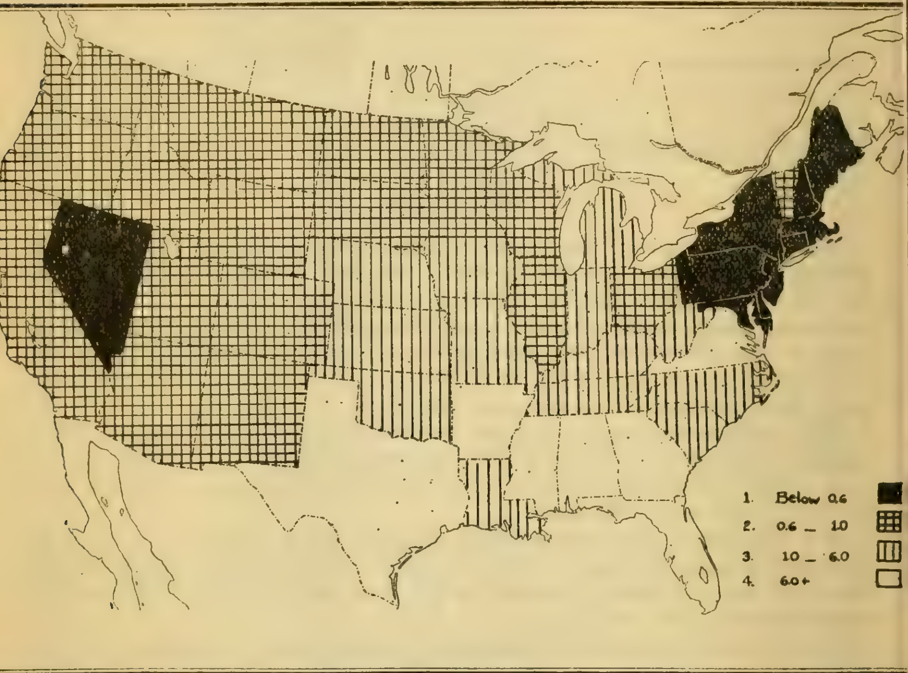


CHART No. 67.

TABLE No. 122.—*Ratio of admissions for mumps.*

	White.				Colored.				Total, white and colored.
	Regular Army.	National Guard.	National Army.	Total.	Regular Army.	National Guard.	National Army.	Total.	
United States........	34.85	52.64	27.37	38.93	16.31	121.11	35.60	37.26	38.89
Europe...............	54.79	144.45	73.17	74.16	574.00	....	....	....	82.08

Considering first the distribution by Army, it will be seen that both in the United States and in Europe, among the colored as well as the white troops, mumps was much more prevalent in the National Guard than in either the Regular or National Armies.

The above tables show us that mumps was twice as prevalent among our troops in Europe as among those in the United States. This increase prevailed in all three armies and among both colored and white troops.

As mentioned before, very few deaths resulted from mumps. A total of nine deaths resulted from 25,472 admissions. The death rate was consistently greater in Europe (0.02 per 1,000) than in the United States (0.01 per 1,000).

It may prove of interest to treat in some detail the distribution of mumps by camps of occurrence and State of nativity of the victims of mumps in the United States. Following is a table of the rate of admissions per 1,000 mean strength in the National Army and National Guard camps.

TABLE No. 123.—*Admissions per 1.000 mean strength, by camps.*

National Army camps.	Rate per 1,000.	National Guard camps.	Rate per 1,000.
Lee	163.8	Beauregard	454.9
Travis	156.3	Wheeler	390.4
Jackson	64.1	Bowie	205.5
Pike	55.4	Shelby	108.3
Custer	38.4	Sevier	68.6
Dodge	29.3	Greene	41.2
Taylor	16.5	Kearney	23.1
Grant	13.6	MacArthur	18.7
Lewis	13.1	Sheridan	10.3
Sherman	9.6	Logan	9.1
Upton	8.2	McClellan	8.3
Meade	7.5	Doniphan	7.3
Gordon	7.3	Cody	5.8
Funston	6.5	Hancock	4.4
Dix	2.4	Wadsworth	1.1
Devens	2.3		

This table serves to emphasize the difference in the rates for National Guard and National Army camps. The rates in the National Guard camps are considerably higher. However, in both armies mumps reached epidemic proportions in several camps. Camps Beauregard, Wheeler, Bowie, and Shelby have the highest rates of admissions among the National Guard camps while Camps Lee, Travis, Jackson, and Pike have the highest rates among the National Army camps.

Some idea of the size and duration of the epidemic in these camps may be gained from the following list of admissions taken from the monthly reports.

TABLE No. 124.—*Admissions, National Guard and National Army.*

	September.	October.	November.	December.
NATIONAL GUARD.				
Camp Beauregard	2	32	466	1,299
Camp Wheeler	6	17	301	1,923
Camp Bowie	14	111	342	1,035
Camp Shelby	1	66	331	383
NATIONAL ARMY.				
Camp Lee	1	7	276	990
Camp Travis	3	45	338	943
Camp Jackson	24	53	82	358
Camp Pike	4	1	123	344

It is very noticeable from the above table that the numbers of admissions in all of these camps increased appreciably from month to month and reached their maximum frequency in December.

In this respect the epidemics of mumps differ somewhat from the epidemics of measles which almost invariably reached their maximum in November and were well under control in December. Mumps on the other hand ran well over into January before being checked.

The above eight camps having the highest admission rates for mumps, all quartered troops coming from sparsely settled and rural regions. With the exception of Camp Lee they received very few troops from the larger towns and cities. Perhaps somewhat more than a third of the troops in Camp Lee came from the larger towns and cities.

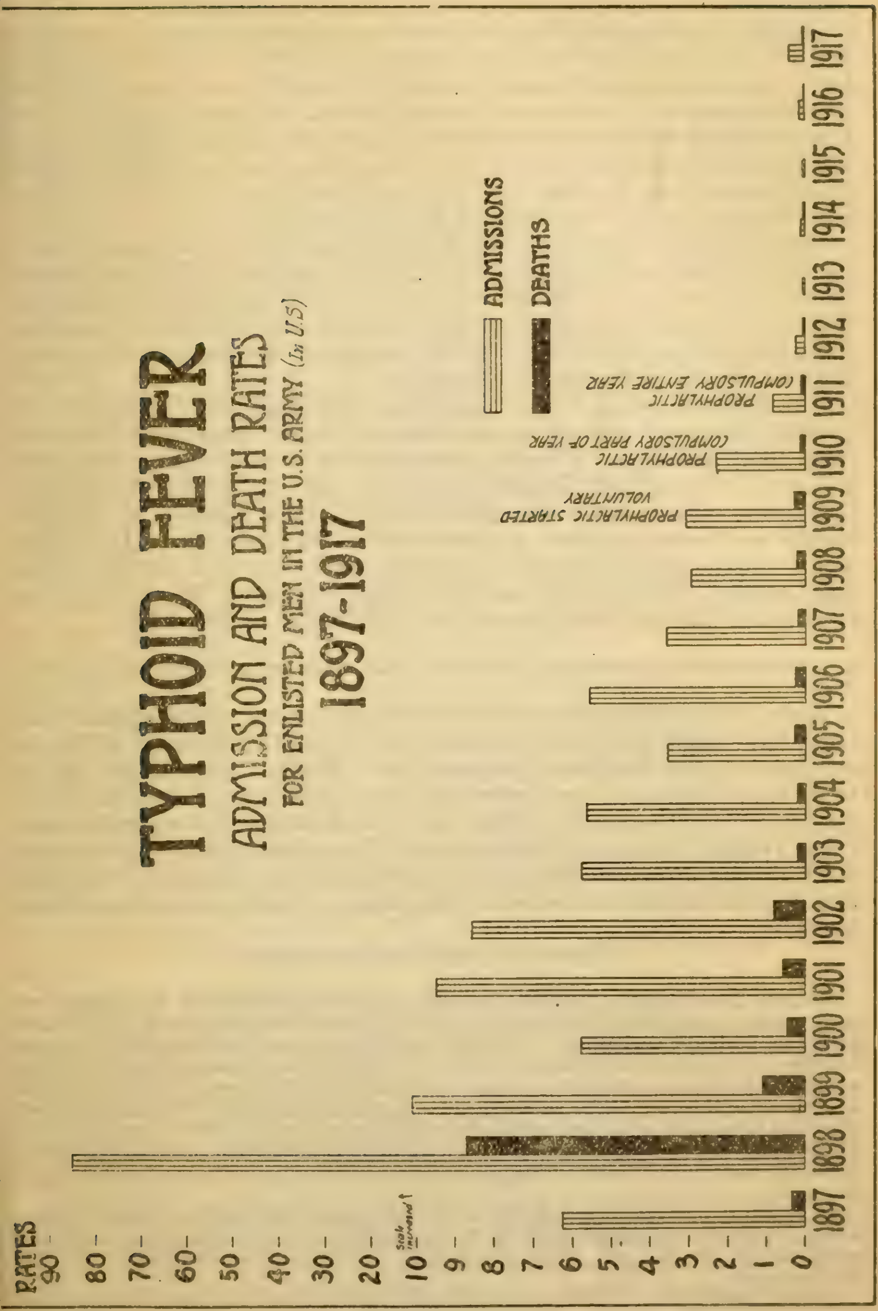
On the other hand, the camps showing the greatest immunity from mumps received men from the more densely populated areas. Among these are Camps Dix, Devens, Meade, and Upton of the National Army and Camps Wadsworth, Hancock, McClellan, Logan, and Sheridan of the National Guard. In other words, we find a distribution for mumps very similar to that noted for measles. Being also an infectious disease it seems reasonable to urge the same causative factor of immunity for mumps that was suggested for measles. In the cities mumps are so widespread that practically every child suffers an attack at or before his early school years and consequently grows up immune to mumps. But, on the other hand, in sparsely settled areas many individuals grow to adult life without having become immunized to the disease. The fact that we have at the one extreme a very high rate of admission among troops born in the rural States of Georgia, Alabama, Mississippi, Florida, Virginia, Arkansas, Texas, Kentucky, Tennessee, Kansas, Nebraska, and Oklahoma while at the other extreme we have an apparent immunity among the troops coming from the more densely populated States of Rhode Island, New York, New Jersey, Connecticut, Massachusetts, Pennsylvania, Maryland, Delaware, and District of Columbia seems to indicate that in the case of mumps also the early acquisition of immunity through crowding is an important factor in determining the rate of mumps in the camps. Crowding in camp quarters or in hospitals have also undoubtedly tended to facilitate the spread of the disease among those who were not already immune.

VIII. Typhoid Fever.

1. GENERAL.

Since 1911 the Surgeon General's reports have each year presented an increasing amount of convincing evidence of the value to the Army of compulsory antityphoid inoculation. In 1917 this method of protection was of course tested on a much greater scale than ever before, but the results have justified the previous conclusions as to its value. Substantial protection has been secured not only against typhoid, but also against paratyphoid A and B by use of the triple typhoid vaccine adopted soon after the declaration of war.

It will be noted in the statistical part of this report that during the year 1917 there were 297 cases of typhoid; 13 cases of paratyphoid A; 7 cases of paratyphoid B. A large proportion of the cases occurring in this country were in men who were in the incubation period of the disease on their entrance into the military service. The reports



TYPHOID FEVER
ADMISSION AND DEATH RATES
FOR ENLISTED MEN IN THE U.S. ARMY (In U.S.)
1897-1917

CHART NO. 68.

of the cases which occurred in France indicate that almost all the patients had escaped receiving the typhoid prophylactic.

During the Spanish War of 1898 the admission rate for typhoid was 141 per 1,000 and the death rate 14 per 1,000. If this experience had been repeated in this war, for each 1,000,000 men there would be 140,000 cases of typhoid and 14,000 deaths. It can not be claimed that all of our protection from such a calamity is due to vaccination, as sanitation had much effect, but enough cases are occurring in spite of all precautions to show that there is constant danger of infection and constant need of protection by vaccination.

Recent experiments conducted at the Army Medical School have resulted in the perfecting of an oil vaccine modeled after the French vaccine, by which a complete immunization can be given in one dose. This is a distinct practical advance as an administrative measure, as it saves time and labor. A full report of the work of the Army Medical School is presented elsewhere.

Examination of all food carriers has been made for carriers of the typhoid group of organisms, and carriers found have been excluded from food handling. Where possible these carriers have been sent to the Walter Reed General Hospital for study and treatment. One cook whose urine was practically a pure culture of typhoid bacilli was found to have a pyonephrosis on one side. His kidney was removed and he made a complete recovery as a carrier. Two gall-bladder typhoid carriers have been operated on for cure by removal of the gall bladder and are still under observation.

2. VACCINATION AGAINST TYPHOID AND THE PARATYPHOID FEVERS.

Since the mobilization on the Mexican border, paratyphoid vaccines have been used in addition to the typhoid vaccine for all troops on duty in the Southern Department. When troops began to go to Europe they, too, were given the para-vaccines. After the 1st of August, 1917, the two vaccines were combined and were given as a triple typhoid vaccine on one course of three doses, since experimental work during June and July had shown that the reaction, both local and general, was no more severe than that occurring after the typhoid alone.

3. REPORTS FROM DEPARTMENTS.

Southern Department.—With the prompt routine administration of typhoid and paratyphoid prophylaxis the number of cases of these infections among the military personnel is almost negligible. But four of each are reported from the regular service and three of typhoid in the National Army. There have been cases among the civilian employees who have not had the proper vaccination, but the present rate among those who have had the vaccination shows an almost perfect immunity. With such a record, when the large number of new recruits handled is considered, it would seem that with proper enforcement of suitable vaccination regulations outside the Army as well inside, these diseases might almost within a comparatively short time be rendered things of the past.

In regard to one case of death due to typhoid among the militia during the year, when no cases of typhoid are reported in the admissions for that disease, note that this was a case admitted in 1916, which died January 15, 1917, and is consequently included in this report.

Central Department.—There were 5 cases of typhoid fever, 2 of these being at Fort Leavenworth, Kans., and 1 at each of the following posts: Fort Benjamin Harrison, Ind.; Fort Crook, Nebr.; and Fort Riley, Kans.

The records show that the two soldiers at Fort Leavenworth, Kans., had completed typhoid inoculations; that the case at Fort Benjamin Harrison had been last immunized about the year 1912; that the case at Fort Crook had not been immunized; that the case at Fort Riley had received first dose only toward immunization prior to attack.

In addition to the above, Fort Leavenworth reports three cases of typhoid fever among civilians with no records of inoculation, their respective ages being 6, 16, and 20 years.

No typical cases of typhoid or paratyphoid reported. During the year, 16,075 cases have been immunized with excellent results and practically no serious reactions. Number at present not immunized, 217. These are new recruits and inoculations are now being given.

Western Department.—There have been eight cases of typhoid fever and one of paratyphoid in the command during the past year. In each case the medical officer was called upon for special report, required by instructions from the Surgeon General's Office. These reports indicated that either immunization had not been completed or that the soldier had acquired the infection prior to enlistment. Delay in immunization was apparently due to the rapidity with which it was necessary to move recruits from depots to regiments.

Eastern Department.—During August, five cases of typhoid fever were reported in the Fifth New Jersey Infantry stationed at Pompton Lakes, N. J. The surgeon of the regiment stated that there was considerable pollution of the ground by men defecating and urinating outside the latrines. On account of broken pipes connected with the toilet in a pumping station, discharges from the toilet entered a near-by well. This was proven by an aniline test. The records in regard to inoculation against typhoid were not properly kept, and it was found that there were large numbers in nearly all the companies who had not had the typhoid vaccination completed. This carelessness no doubt, accounts for the epidemic of typhoid in this organization.

One case of typhoid occurred in the Forty-seventh New York Infantry while at Lynchburg, Va., in September. The soldier had received one inoculation against typhoid in July, 1917.

One case of typhoid occurred at Grove Hill, Va., in a detachment of the Second Virginia Infantry on guard duty at that place. Typhoid existed outside of the camp in the section from which the milk supplied to the detachment came, but the source of the infection could not be definitely determined.

On August 27, in Companies C and L, First Virginia Infantry, at Lynchburg, Va., 75 out of 212 men were sick. Twenty-five of these had a temperature no higher than 99 degrees and little or no toxemia. The remaining 50 had temperatures of 100 degrees or more. Ten of the 25 mildly sick developed more severe symptoms and had to be confined to bed in the following 48 hours. The surgeon reported that the symptoms in these cases suggested typhoid, "if typhoid, was modified by vaccination." One case, sick three weeks in hospital, was reported to have a true clinical typhoid, but one of the State bacteriologists stated with regard to blood cultures in this case that he had obtained an organism "probable typhoid bacillus" but he could not satisfactorily identify it and on a second culture being obtained he was unable to find the organism. He secured 15 blood cultures from soldiers of this organization in hospitals but could find no evidence of typhoid. He remarked, however, that the media and the containers were unsatisfactory, the cultures being contaminated. The soldier who had clinical symptoms of typhoid had received only one vaccination against typhoid.

Two cases of typhoid were reported in the First Maryland Infantry during August, and one case in the Maryland Coast Artillery about the same time.

The surgeon, Fort Jay, N. Y., reported one case of typhoid fever admitted to the hospital September 4, 1917, and stated that the source of infection is unknown, probably contracted in a civilian community.

One case appeared at the camp of the Twelfth Field Artillery while stationed near Fort Myer, Va., and was sent to the post hospital, Fort Myer, Va., for treatment on October 7, 1917. The patient had recently been transferred from mobilization camp at Syracuse, N. Y., and his typhoid inoculation was completed at the encampment of the Twelfth Field Artillery on September 11, 1917.

At Fort Myer, Va., one case of typhoid in a candidate at the officers' training camp was admitted to the hospital August 23, 1917, the same day that he arrived, showing that the disease was contracted elsewhere.

Fort Oglethorpe, Ga.—During the summer and early autumn 43 cases of typhoid fever occurred. Of these 22 cases were part of an epidemic among German war prisoners as a result of eating contaminated cheese. Most of the Germans were vaccinated. This matter is covered by a special report forwarded to the Surgeon General.

4. HAWAII.

Since the epidemic of typhoid fever recorded in the report of 1916, there have been a few scattered cases at Schofield Barracks. Two of these are recorded in the report for 1917. For two years previous to October, 1915, when the small epidemic mentioned in the 1916 report occurred, there were no cases of typhoid fever. The 13 cases occurring in 1915 and 1916 developed in the following order: Six in October, 3 in November, 1 in December, 1915: 2 in January, and 1 in February, 1916. Of the 13 cases, 6 were Japanese, 5 were soldiers, 1 was an officer's son, and 1 was a white civilian employee. There was only one death, and that in an uninoculated Japanese. The noteworthy feature of the small epidemic in October, 1915, was the fact that all cases used the Koolau water supply. One of the cases, developing in the latter part of the epidemic, was taken sick at a camp of the constructing quartermaster, located on this water supply. The fact that this case occurred on the water supply and at a later date than the other cases rather tends to support the theory that the five other cases in this epidemic may have been due to one common source of infection, and that on the watershed. The opportunity for a carrier to infect this water supply by walking in the water, was present in 1915; but at this time there was no water going to the post except through a system of tunnels into which no water from the general drainage area occupied by human beings found its way. Toward the end of September, 1917, an epidemic of typhoid fever occurred in Schofield Barracks. The first cases were positively diagnosed on the 8th of October in two quartermaster employees. The first case reported to medical officers with symptoms and later diagnosed as typhoid fever was taken ill on the 23d of September. From then until January 17, 1917, 55 soldiers and 56 civilians contracted this disease. The last 11 cases, occcurring in civilians, were in unprotected persons, and from the nature and time of their occurrence were in all probability contact infections. During the period immediately preceding this epidemic, that is from the middle of August until the middle of September, there had been little heavy rainfall on the watershed and there was a large amount of construction on the water system with no reserve supply of water. Therefore, it had been found necessary, in order to keep up the flow of water, to use the accessory pumping station mentioned in the 1916 report more or less constantly, although the sanitary authorities did not realize that this was being done. It developed that, in the early part of August, a Japanese arrived at one of the camps of the laborers on the watershed, afflicted with a disease the symptoms of which indicated a typhoid-like condition, although the man himself was not located. While he was sick, a Japanese laborer, Mizusawa, in another camp designated "No. 2," visited him and Mizusawa was taken sick with typhoid fever during the last week in August. He continued to work for several days afrer the beginning of his illness and lived at Camp No. 2. He stopped work on the 1st of September, but continued at the camp until September 7 and arrived at Honolulu on the 10th, where he presented himself for admission to a hospital. His symptoms on admission were those of hemorrhage into the intestine and his blood showed a positive Widal reaction. In

October his blood still agglutinated the typhoid bacillus in high dilution. This man used an unsanitary privy at Camp No. 2, located on the drainage area of the stream which supplied the pool at the so-called "east pumping station," supplying water to the Castner section of Schofield Barracks. On the 13th and 14th of September, during this comparatively dry period, rather heavy rains occurred on the watershed, sufficient to cause the supply at Castner to become exceedingly muddy, as noticed at the faucets in the post. Ten days after the occurrence of this heavy rain the first cases of typhoid developed, and within a comparatively short period 100 cases had occurred. All of the cases at some time during the incubation period drank water from the Koolau supply.

The vaccinated population of the Castner section, supplied by water from the Koolau Range at the time of the epidemic, was 4,087; the unvaccinated population, 812. The following table shows the incidence and mortality in these two groups:

	Population on Castner water supply.	Number of cases of typhoid.	Cases per 1,000.	Deaths.		Mortality rate per 1,000.
				Number	Per cent.	
Vaccinated	4,087	55	13.45	4	7.4	0.97
Unvaccinated	812	45	55.41	7	15.5	8.62

This table indicates very clearly the protection afforded by the prophylactic and shows that whereas it is the most important factor in the elimination of typhoid fever from the Army, it can not be considered an absolute and never-failing protection and that all of the safeguards of general sanitation and personal hygiene must be preserved unimpaired. It is the first time in the history of prophylactic vaccination against typhoid in the United States Army that it has been possible to see the protection afforded by the prophylactic against water-borne infection. It is noteworthy that, all proper protective measures being used, the epidemic promptly ceased in the protected population, whereas 11 secondary cases occurred among those not vaccinated.

The investigation of this epidemic was made by a board appointed by the department commander. In addition to this board, the commanding officer of Schofield Barracks detailed a board. Both boards arrived at essentially the same conclusions in regard to the origin of the epidemic. In the report of the board first mentioned, the inadequacy of the present water supply, with its attendant conditions, namely, employees residing on the watershed and the necessity of using the pumping station whose source of supply came from a region polluted by human excreta, was considered as the essential contributory cause, and both boards also recommended the chemical treatment of all water from this watershed during the construction period and the treatment of all water during any time in which it became necessary to use the pumping station.

TABLE No. 125.—*Pleurisy purulent as a complication with the following diseases, enlisted men in United States, 1917.*

Primary diseases.	Secondary complications.	Number of cases.	Recovered.	Died.	Remaining.
Other diseases of nasal fossae		1	1		
Broncho-pneumonia		43	7	12	24
Pleurisy		13	7	2	4
Acute abscess		1	1		
Broncho-pneumonia	Pericarditis purulent	1		1	
Lobar pneumonia	do	3	1	2	
Do		282	7	4	271
Do	Osteomyelitis	1	1		
Do	Pericarditis, with effusion	1		1	
Do	Peritonitis, acute diffuse	2		2	
Do	Septicemia, general	3		3	
Do	Pleurisy, serofibrinous	3	1	2	
Do	Broncho-pneumonia	1		1	
Measles	Pleurisy, serofibrinous	2	1	1	
Do	Pleurisy, fibrinous	1			1
Do	Otitis media	2			2
Do	Lobar pneumonia	52	8	23	21
Do	Broncho-pneumonia	72	8	45	19
German measles		1		1	
Tuberculosis of lungs		1		1	
Sinusitis		1	1		
Tonsils, diseases of		1			1
Bronchitis		7	4	1	2
Appendicitis	Broncho-pneumonia	3	1	2	
Skin and annexa, other diseases of		3		1	2
Pes planus		1			1
Total		502	49	105	348

TABLE No. 126.—*Mastoiditis as a complication with the following diseases, enlisted men in United States, 1917.*

Primary disease.	Secondary complications.	Number of cases.	Recovered.	Died.	Remaining.
Measles		25	6		19
Scarlet fever		1	1		
German measles		1	1		
Mumps		2			2
Otitis media		162	105	3	54
Other diseases of the ear		1	1		
Other diseases of the nasal fossae		1			1
Diseases of the tonsils		1	1		
Furuncle		1	1		
Not specified or ill-defined diseases		1			1
Primary lobar pneumonia		3	1		2
Otitis media [1]	Abscess (all others)	1		1	
Do	Meningitis	1		1	
Do	Septicaemia, general	1		1	
Do	Thrombosis	1		1	
Do	Tonsillitis, follicular	1	1		
Do	Broncho-pneumonia	2	1	1	
Total		206	119	8	79

[1] Cases not included in Table No. 55, of otitis media as a complication.

Table No. 127.—*Otitis media as a complication with the following diseases, enlisted men in United States, 1917.*

Primary disease.	Secondary complications.	Number of cases.	Recovered.	Died.	Remaining.
Measles		557	410	2	145
Do	Abscess, retropharyngeal	1	1		
Do	Abscess, all others	1	1		
Do	Arthritis	2	1	1	
Do	Erysipelas	2	1	1	
Do	Hemorrhage	1	1		
Do	Mastoiditis	25	13		12
Do	Meningitis, cerebrospinal	1		1	
Do	Meningitis, other than epidemic	3		3	
Do	Pleurisy, fibrinous	2	2		
Do	Pleurisy, suppurative	2			2
Do	Septicemia, general	1		1	
Do	Sinusitis, frontal	1			1
Do	Sinusitis, maxillary	1			1
Do	Thrombosis	1		1	
Do	Broncho-pneumonia	33	19	2	12
Broncho-pneumonia	Mastoiditis	2		1	1
Do		16	3	3	10
Scarlet fever		25	22		3
Diphtheria		1	1		
Influenza		26	23		[illegible]
Do	Mastoiditis	1	1		
Do	Sinusitis, frontal	2	2		
Meningitis, cerebrospinal, epidemic		1			1
German measles		13	9		4
Tuberculosis of lungs		2	2		
Syphilis, secondary		1	1		
Meningitis, simple		1		1	
Other diseases of the ear		2	2		
Adenoids		5	4		1
Sinusitis		2	2		
Other disease of the nasal fossæ		8	5		3
Diseases of the larynx		5	3		2
Diseases of the pharynx		16	14		2
Diseases of the tonsils		35	26		9
Do	Abscess, peritonsillar	1	1		
Do	Mastoiditis	38	38		
Do	Sinusitis, frontal	1	1		
Do	Tonsillitis, hypertrophic	1	1		
Bronchitis		30	24		6
Pleurisy	Acute bronchitis	1			1
Do	Mastoiditis	1	1		
Do		1			1
Respiratory system, other diseases of	Acute bronchitis	1	1		
Skin and annexa, other diseases of	Infection local	1	1		
Do		1	1		
Not specified or ill-defined diseases		2	1		1
Primary lobar-pneumonia		33	22	1	10
Do	Mastoiditis	2			2
Total		912	661	18	233

TABLE No. 128.—*Complications of fatal cases of appendicitis, enlisted men in United States, 1917.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Abscess, rectocecal; peritonitis, acute, local.	1	Peritonitis, acute, local	10
Abscess, rectocecal; pneumonia, unclassified	1	Broncho-pneumonia; pleurisy, suppurative	2
Abscess (all others)	3	Broncho-pneumonia; valvular heart disease (mitral insufficiency)	1
Embolism	1	Pyemia, surgical	1
Gangrene	3	Septicemia, general	3
Gangrene; peritonitis, acute, fibrinous	3	Broncho-pneumonia; peritonitis, acute, diffuse	1
Gangrene; peritonitis, acute, local	1		
Intestinal obstruction from spastic or paralytic causes	2		
Peritonitis, acute, diffuse	23	Total	57
Peritonitis, acute, diffuse; hernia	1		

Total admissions for appendicitis	5,448
Total deaths for appendicitis	74

TABLE No. 129.—*Complications of fatal cases of otitis media, enlisted men in United States, 1917.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Abscess of brain	1	Mastoiditis; broncho-pneumonia	1
Mastoiditis	3	Meningitis, other than epidemic; tuberculous	3
Mastoiditis; abscess (all others)	1	Septicemia, general	1
Mastoiditis; meningitis	1		
Mastoiditis; septicemia, general	1		
Mastoiditis; thrombosis	1	Total	13

Total admissions for otitis media	5,876
Total deaths for otitis media	14

TABLE No. 130.—*Complications of fatal cases of diphtheria, enlisted men in United States, 1917.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Broncho-pneumonia	1	Pneumonia, lobar	1
Endocarditis, acute	1	Endocarditis, septic	1
Myocarditis	1		
Paralysis, diphtheritic	1	Total	6

Total admissions for diphtheria	1,163
Total deaths for diphtheria	12

TABLE No. 130A.—*Complications of fatal cases of German measles, enlisted men in United States, 1917.*

Complications.	Number of deaths.	Complications.	Number of deaths.
Pleurisy, suppurative	1	Broncho-pneumonia	7
Pneumonia, lobar	6		
		Total	14

Total admissions for German measles	8,982
Total deaths for German measles	17

TABLE 131.—*Case mortality rate from selected diseases. United States enlisted men and native troops, in other countries, 1917 (including Mexico, Philippines, Hawaii, Panama, Porto Rico, China, at sea).*

Diseases.	Cases.[1]	Deaths.	Case mortality rate, pers cent of cases.
Meningitis, not epidemic	5	3	60.00
Meningitis, cerebrospinal	19	11	57.90
Broncho-pneumonia	60	11	18.33
Lobar pneumonia	197	26	13.20
Typhoid fever	34	4	11.77
Scarlet fever	41	3	7.32
Tuberculosis	234	16	6.84
Nephritis, acute and chronic	89	5	5.62
Appendicitis	548	5	.91
Measles	1,301	10	.77
Malarial fever	1,938	5	.26
Influenza	1,982	5	.25

[1] Number of cases calculated by subtracting from gross number of admissions the remaining 1917 cases and the readmissions 1917.

TABLE NO. 132.—*Case mortality rate from selected diseases, enlisted men in Europe, 1917.*

Diseases.	Cases.[1]	Deaths.	Case mortality rate, per cent of cases.
Cerebrospinal meningitis (epidemic)	38	19	50.00
Nephritis, chronic	13	3	23.08
Broncho-pneumonia	131	26	19.85
Lobar pneumonia	188	27	14.36
Scarlet fever	57	8	14.04
Organic diseases of the heart	76	8	10.53
Tuberculosis	79	7	8.86
Measles	1,131	18	1.59
Pleurisy	264	2	.76

[1] Number of cases calculated by subtracting from gross number of admissions the remaining 1917 case and the readmissions 1917.

TABLE NO. 133.—*Case mortality rate from selected diseases among officers, total, 1917.*

Diseases.	Cases.[1]	Deaths.	Case mortality rate, per cent of cases.
Cerebrospinal meningitis	7	6	85.71
Apoplexy	6	4	66.68
Septicemia	4	2	50.00
Lobar pneumonia	94	16	17.02
Nephritis, acute and chronic	45	3	6.68
Tuberculosis	107	4	3.74
Broncho-pneumonia	39	1	2.56
Appendicitis	217	3	1.38

[1] Number of cases calculated by subtracting from gross number of admissions the remaining 1917 cases and the readmissions 1917.

TABLE No. 134.—*Case mortality rates from selected diseases. United States enlisted men, 1917.*

Diseases.	Cases.[1]	Deaths.	Case mortality rate, per cent of cases.
Apoplexy	19	13	68.42
Cerebrospinal meningitis (epidemic)	577	302	52.34
Septicemia	45	23	51.11
Meningitis, not epidemic	48	23	47.92
Broncho-pneumonia	1,066	202	18.95
Diabetes, mellitus	86	16	18.60
Cancer and other malignant tumor	75	13	17.33
Lobar pneumonia	4,912	747	15.21
Typhoid fever	192	18	9.38
Nephritis, acute and chronic	597	41	6.87
Peritonitis, acute and chronic	209	12	5.74
Scarlet fever	1,428	48	3.36
Measles	41,502	947	2.28
Alcoholism	1,470	29	1.97
Tuberculosis	6,027	114	1.89
Appendicitis	4,890	74	1.51
Organic diseases of the heart	3,163	47	1.49
Diphtheria and results	1,004	12	1.20
Pleurisy	2,662	11	.41
Otitis media	5,087	14	.28
Syphilis (all)	7,485	20	.27
German measles	7,616	17	.22

[1] Number of cases calculated by subtracting from gross number of admissions the remaining 1917 cases and the readmissions, 1917.

IX. THE FRUITS OF PREVENTIVE MEDICINE.

The crowding together in barracks of raw recruits many of whom come from sparsely settled areas is a procedure that is always fraught with great danger, a danger greater even than that of actual battle. Thus, it was stated by Virchow, in 1879, that in the Crimean War the French Army lost 96,615 men by death; only 10,240 fell before the enemy; about an equal number of wounded died in hospitals; and more than 75,000 men died of disease. In the American Civil War, 97,000 men died in battle and 184,000 from epidemics and sicknesses. Microorganisms are an enemy more to be dreaded in war than armed forces.

To understand the nature of the dangers that accompany the mobilization of an army it may be instructive to compare the annual number of deaths from various causes and the percentage that each is of the total deaths among males, 20 to 30 years of age, in civil life (1915) and in the Army enlisted men of the United States, white and colored (1917). Such a comparison is made in Table 135.

Table No. 135.—*Causes of sickness in Army and civil life compared.*

	Frequency.		Percentage of all deaths.	
	Civil.	United States Army.	Civil.	United States Army.
Age, years	[1] 20–29	21–30	....	....
Total annual deaths, all causes	3,093	3,611	....	....
	Average for year 1917.			
	Each year of age.	All ages.		
Typhoid fever (No. 881)	126.7	18	4.11	0.50
Measles (No. 477)	3.7	947	.12	26.23
Scarlet fever (No. 767)	4.2	48	.14	1.33
Diphtheria (No. 221)	8.8	12	.29	.33
Tuberculosis (Nos. 864–874)	1,062.8	114	34.36	3.16
Syphilis (Nos. 828–830)	16.4	20	.53	.55
Cancer and other malignant tumors	35.3	13	1.14	.36
Acute articular rheumatism, rheumatic fever (No. 745)	13.7	5	.44	.14
Diabetes (Nos. 212–213.)	32.4	16	1.05	.44
Alcoholism, acute (No. 029)	17.7	11	.57	.30
Meningitis (No. 482)	17.5	302	.57	8.36
Apoplexy (No. 064)	17.6	13	.57	.36
Epilepsy (No. 261)	26.8	6	.87	.17
Acute endocarditis (No. 247)	25.7	3	.83	.08
Valvular heart disease, mitral insufficiency only	129.0	7	4.17	.19
Broncho-pneumonia (No. 934)	18.6	202	.60	5.59
Lobar pneumonia (No. 620)	163.2	747	5.28	20.69
Pleurisy (Nos. 665–667)	9.7	11	.31	.30
Ulcer of stomach (No. 889)	14.5	7	.47	.19
Diarrhea and enteritis, over 2 years (Nos. 215–216–252)	12.8	2	.41	.06
Appendicitis and typhlitis (No. 065)	91.1	74	2.95	2.05
Hernia (No. 354)	3.6	5	.12	.14
Intestinal obstruction (Nos. 296–398)	12.7	10	.41	.28
Cirrhosis of liver (Nos. 447–448)	10.1	3	.33	.08
Simple peritonitis (Nos. 645–646)	5.6	6	.18	.17
Acute nephritis (No. 525)	25.5	15	.81	.42
Bright's disease (No. 526–527)	78.3	26	2.54	.72
Total deaths from traumatism	851.2	627	27.50	17.36
Total deaths from traumatism except military agents and air machines	....	405	....	11.22
Suicide (T 79)	132.2	109	4.28	3.02
Deaths from traumatism by crushing	237.9	116	7.70	3.21

[1] Average.

NOTE.—The terms used in naming causes of death in civil life are as given in United States Census Mortality Statistics, 1915, Table 7 A. The corresponding terms used for the Army data are indicated by numbers (in parentheses) which are those used in the "Coding Book for Diseases and Traumatisms," Medical Department, United States Army, 1917.

Table 135 shows the relative frequency of the various causes of death in civil life and in the Army. It seeks to answer such questions as this: Was measles (in 1917) a relatively commoner cause of death in the Army than in civil life? Is suicide a relatively commoner cause of death in the Army than in civil life?

To make a comparison between the Army and civil life, it has to be kept in mind that the Army consists chiefly of males between the ages of 21 to 30, inclusive. The census returns for mortality (of the registration area), 1915, give the number of deaths for each disease for all males, 20 to 29 years. There were 30,929 such deaths, or, on the average, 3,093 for each age year. This is to be compared with the 3,611 deaths occurring in the Army, 1917. To make the comparison more precise there is also given the percentage that each cause of death is of total deaths in civil life and in the Army, respectively.

Certain conclusions readily flow from this table. All causes of death may be classified in the groups, (1) much commoner in the Army than in civil life; (2) much less common in the Army than in civil life; (3) of nearly equal commonness in the Army and in civil life.

To the group of causes of death that are commoner in the Army than in civil life belong the following: Measles, 219 times relatively more important in Army than in civil life; meningitis, 14.7; scarlet fever, 9.5; broncho-pneumonia, 9.3; lobar pneumonia, 3.9.

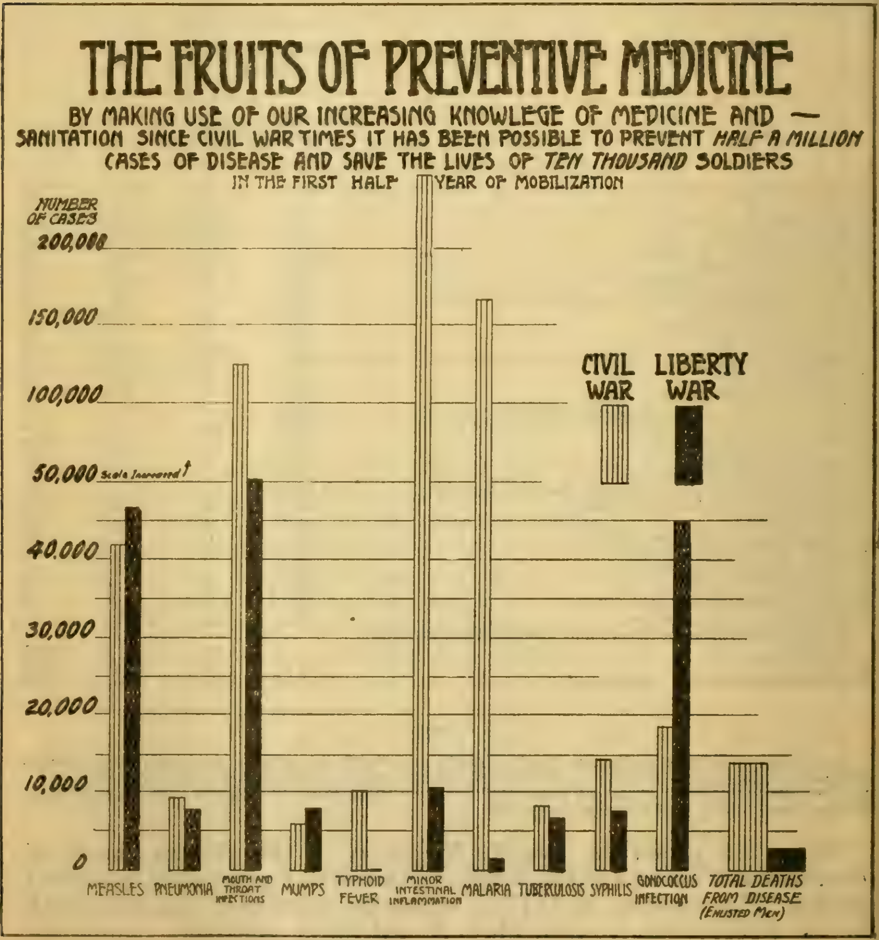


CHART No. 19.

In this group the diseases are characterized by their communicableness. The hypothesis suggests itself that their high death rate in the Army is due to the crowding of men at the cantonments.

To the group of diseases much less common in Army than in civil life belong: (Class I) Tuberculosis, cancer, epilepsy, acute endocarditis, organic diseases of the heart; (Class II) typhoid fever, diarrhoea, and enteritis, traumatisms; (Class III) diabetes, alcoholism, cirrhosis of liver, intestinal obstruction, hernia, rheumatic fever, ulcer of the stomach, Bright's disease.

The rate of Class I is low in the Army because liability to these diseases is selected against at the time of physical examination. Class II is low because of superior protective public sanitation in the Army. Class III is low chiefly because of superiority of personal hygiene and of medical care in the Army.

The third group does not show a very different rate in Army and civil life. It includes some of the less common diseases of the Army age—diphtheria, syphilis, apoplexy, pleurisy, simple peritonitis, acute nephritis. It includes also appendicitis and suicide which are about three-fourths as common in Army as civil life.

To summarize: The greatest defect in the defense of the Army against death by disease lies in inadequate protection against communicable (especially contagious) diseases. The crowding of camp life brings special dangers which must be met by special precautions beyond those necessary in civil life. These precautions are particularly necessary when the troops come from rural States.

It is the function of the Surgeon General's Office to fight microorganisms in order that the General Staff may have live and effective men to fight for democracy.

While the record of diseases described in the foregoing pages may make disheartening reading, still the record must be made—the facts must be faced, and our limitations must be overcome by research that shall lead to knowledge. Yet in this record of disease there is ground for encouragement rather than pessimism. A comparison with other American wars shows how great has been the advance of preventive medicine and how much it has increased the Army's effectiveness. Instead of the hundreds of deaths from typhoid during the Spanish-American War, the Army in 1917 suffered only 18 deaths from this disease. The first six months of the mobilization of the Federal Army during the Civil War, July to December, 1861, are nearly comparable as to season with the period July to December, 1917. Let us compare the morbidity for certain common diseases in the two Armies, 56 years ago and last year.

Table No. 136 shows the relative admission rate of certain common diseases in the Army July to December, 1861, and July to December, 1917. Figures denote actual number of cases of disease reported in the entire Army, of white troops. As the strength of the Army in 1917 was about three times that of the Army of 1861, the actual number of cases in 1861 has been multiplied by three.

TABLE No. 136.—*Admissions, first six months Civil War and present war compared (white troops).*

Disease.	First half-year of Civil War ×3.	United States enlisted men, July-Dec., 1918 (first half-year of present war).
Measles	41,815	46,428
Pneumonia	9,246	7,675
Mouth and throat infections	125,445	52,462
Mumps	6,336	7,843
Typhoid fever	10,068	225
Minor intestinal inflammation	244,107	10,985
Malaria	167,163	1,796
Tuberculosis and hemorrhage of lungs	7,998	6,850
Syphilis	14,790	7,755
Gonococcus infection	18,849	45,027
Total	645,817	187,046

This table, represented graphically in Chart 69, speaks for itself. Aside from gonococcus infection (which is probably commoner now than formerly, and is almost certainly more carefully diagnosed) none of the diseases of the list show an important increase over 1861. Measles and mumps apparently show a slight increase. The great reductions in disease are those brought about by improved sanitation. Diarrhea and dysentery are reduced from 244,000 to 11,000, due to treatment of feces and fighting the fly. Typhoid fever is reduced from 10,000 to 225 by keeping down the fly and especially by protective inoculation; typhoid, the former great scourge of armies, has become as negligible as smallpox. Malaria has been reduced from 167,000 to less than 2,000, due to elimination of mosquito breeding areas.

Mouth and throat infections have been cut in third by better ventilation, preventing of crowding and spitting, and the isolation of carriers. The result for the various diseases amounts to a saving during this half year of mobilization of about half a million cases of sickness and the rescuing of the lives of ten thousand soldiers. Of deaths in 1917 there were 2,984 in Army enlisted men in the United States. For the same strength in the Civil War there were 13,959. Thus the advance in sanitation and preventive medicine since 1861 has saved in the first half year of the war over 10,000 lives.

F. FRACTURES.

The total number of fractures occurring in the Army for 1917 was 6,469, of which 89.6 per cent were simple, 7.4 per cent compound and 3.1 per cent comminuted.

I. Simple Fractures.

Two thousand and thirty were caused by falls, 2,006 by agents not stated, 498 by crushing accidents, 430 by automobiles, and 320 by animals. Other agents as motor cycles, railroad accidents, machinery, etc., caused a lesser number. Only 39 simple fractures were caused by aeroplane accidents.

The metacarpals, radius, rib, clavicle, tibia, and fibula were the most common locations and comprised 58.8 per cent of all cases.

The metacarpals were not divided into individual groups to determine the proportion of fractures of the various bones.

There were 674 fractures of the radius; 76.8 per cent were of the lower, 7.1 per cent the middle, and 3.7 per cent the upper third. This does not include 43, or 6.4 per cent, of cases in which the location of the fracture was not stated; 36, or 5.3, per cent through the head; and 4, or 6 per cent through the neck. The total number of days lost was 14,292.

There were 2 cases of fracture involving the first rib, 15 the second, 27 the third, 17 the fourth, and 37 the fifth, 40 cases with one rib fractured, 122 with two, 17 with three, and 8 with four. In 50 per cent the location or number of ribs fractured was not stated. In two cases the patient died, 1 with two and 1 with three ribs fractured. The days lost were 6,214.

Fracture of the clavicle occurred in 526 cases; 21, or 4 per cent, were of the inner; 194, or 36.9 per cent, the middle; and 138, or 26.2 per cent, the outer third. In 173, or 32.9 per cent, the location was not stated.

Fracture of the tibia occurred in 490 cases, of which 207 were accompanied by fracture of the fibula, 1 the astragalus, and 1 the radius. In cases without an associated fracture of the fibula, 137, or 48.7 per cent were of the lower; 73, or 26 per cent, the middle; and 32, or 11.4 per cent, of the upper third. This does not include 32, or 11.4 per cent, without associated fracture in which the location was not stated and 7, or 2.5 per cent, in which the fracture was through the head of the bone. Of the fibula fractures, 115 were of the lower, 57 of the middle, and 8 of the upper third. The location was not stated in 26 cases and in 1 the fracture occurred through the neck. The total days lost in fracture of the tibia alone were 10,799, and in cases where both tibia and fibula were fractured, 10,867 days.

The fracture of the fibula alone occurs in 466 cases; 371, or 79.6 per cent, being of the lower; 30, or 6.4 per cent, through the middle;

INJURIES AND ASSOCIATED FRACTURES

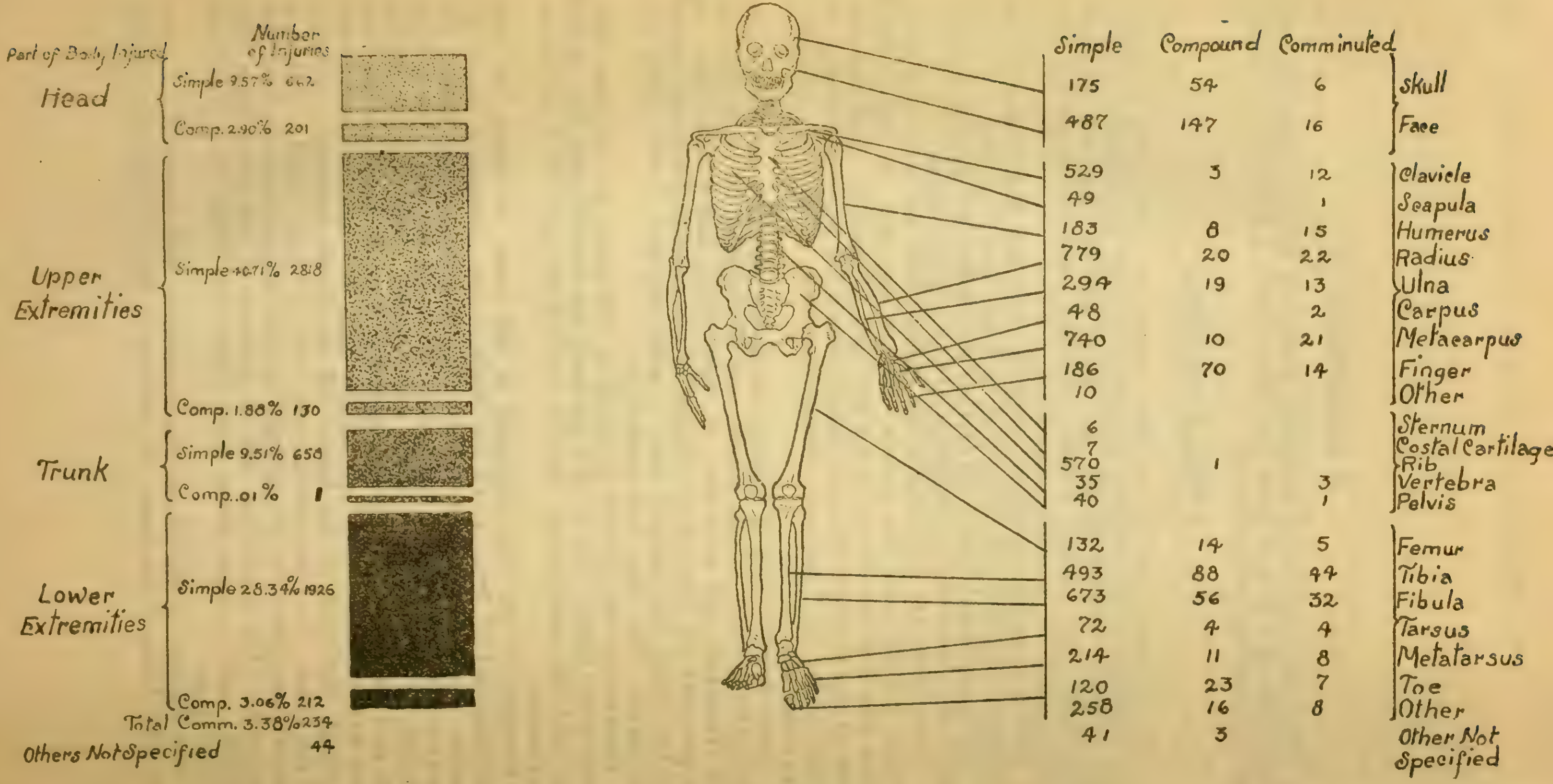


CHART No. 70.

and 27, or 5.8 per cent, through the upper third. In 38, or 8.2 per cent, of cases the location was not stated. The total number of days lost was 15,059.

Operation was performed on 316 patients: 12 being complicated by infection, 3 by malunion, and 1 by nerve injury. The method of operation was not stated in 103 cases; among these 1 patient died.

Plaster of Paris cast was applied to 78 patients after the reduction of fracture. Wiring was the method of operation in 37 cases, bon graft in 3, and the application of a band in 1. The removal of bone fragments was necessary in 10 fractures. Decompression was performed for 6 cases, with a mortality of 33.4 per cent.

II. Compound Fractures.

Of the causative factors producing this type of fracture, 140 were by agents not stated, 61 by falls, 59 by animals, 42 by crushing, and 40 by automobiles. Only 4 were caused by aeroplane accidents, and 1 by hand grenade. Other agents were the cause of a lesser number.

The tibia, nasal, superior maxilla, and skull were the most common locations and comprised 52.8 per cent of the cases.

There were 87 compound fractures of the tibia, 33 occurring without an associated fracture of the fibula. Of these, 7, or 21.2 per cent, were of the lower; 15, or 45.5 per cent, of the middle; and 6, or 18.2 per cent, of the upper third. Two cases, or 6 per cent, were through the head, and in 3, or 9.1 per cent, the location of the fracture was not stated. The fibula was fractured in 54 cases, 19 being of the lower, 26 of the middle, and 5 of the upper third. In 4 cases the location of the fracture was not stated. The total number of days lost in fracture of the tibia alone was 1,993, and in cases where both tibia and fibula were broken, 3,167.

There were 69 cases of fractures of the nasal bone with a total of 637 days lost, 9 cases of the superior maxilla with 186 days, and 29 cases of fracture of the skull with 174 days. Of the skull fractures, 21, or 72.4 per cent, were at the base; 7, or 24.1 per cent, at the vault; and in 1, or 3.4 per cent, the location was not stated.

Operation was performed on 80 patients, 8 being complicated by infection. The method of reduction was not stated in 23 cases, 10 required amputation of all or part of the upper extremity, 4 were reduced by the application of a plate, 4 by wiring the fragments, and 2 by bone graft. Amputation of all or part of the lower extremity was necessary in 9 cases; among these 2 patients died. Decompression was performed in 5, with a mortality of 40 per cent.

III. Comminuted Fractures.

Fifty-two were caused by falls, 48 by agents not stated, 30 by crushing, and 21 by automobiles. One was caused by aeroplane, 2 by pistol ball, 4 by rifle ball, 1 by shell, and other agents figure as causative factors in a varying proportion of cases.

The tibia, metacarpals, humerus, and radius were the most common locations and comprised 47.2 per cent of all cases.

There were 44 cases of fracture of the tibia, 18 without and 26 with an accompanying fracture of the fibula. In 4, or 22.2 per cent, of cases the bone was fractured in the lower; 9, or 50 per cent, in the middle; and 4, or 22.2 per cent, in the upper third. In 1 case the location was not stated. Of the fibula fractures, 10 were of the lower, 10 the middle, and 2 the upper third. In 4 cases the location was not stated. The total number of days lost in fracture of the tibia alone was 1,243 and in cases with both tibia and fibula fractured 1,649.

There were 21 cases in which the metacarpal bones were fractured, 1 case having two and 1 case five bones broken. The total number of days lost was 385.

The humerus was fractured in 15 cases, 7, or 46.6 per cent, being in the lower; 6, or 40 per cent, the middle; and 1, or 6.6 per cent, the upper third. The total number of days lost was 610. One case had an associated fracture of the ulna with the loss of 48 days.

The radial fractures were 14 in number; 7, or 50 per cent, were of the lower; 5, or 35.7 per cent, of the middle third; 1, or 7.1 per cent, through the head; and 1, or 7.1 per cent, in which the location was not stated. No associated fractures were present and the total days lost were 294.

IV. OPERATIONS.

Operation was performed on 27 patients, 3 having a complication of infection. Amputation, all or in part, was necessary in 1 case of the upper and in 3 of the lower extremity. The method of opertion was not stated in 5, and 3 required the removal of bone fragments.

There were 31,057 operations performed in the Army during 1917, 28,664 for disease and 2,393 for traumatism. Operations for the correction of physical defects of drafted men form a large percentage of the total number.

Chloroform was the anesthetic of choice for 493 operations, ether for 11,325, and gas for 380. Local anesthesia was used for 11,356 operations and in 7,503 the anesthetic was not stated.

Recoveries numbered 26,911 and the incomplete cases 3,882. The mortality was ninety-eight one-hundredths of 1 per cent.

The appendicectomies were 3,849 in number, 3,667 without and 182 with drainage. Recovery took place in 3,030 cases, 71 patients died, and 748 cases were incomplete. Among the cases requiring drainage, 49 had a complication of abscess, resulting in the death of 2 patients, 58 acute diffuse peritonitis with the death of 27, and 23 with acute local peritonitis with the death of 10. In 44 cases the appendix was gangrenous, resulting in the death of 5 patients, or a mortality of 11.4 per cent.

The herniotomies were 2,620 in number, of which 16 were femoral, 2,592 inguinal, 9 lumbar, and 3 umbilical. Of the cases requiring inguinal repair, 17 had complications, 6 were strangulated hernias, and 1 relaxed inguinal rings.

Mastoidotomy with drainage was performed in 238 cases of mastoiditis, with a mortality of 4.6 per cent. Mastoiditis complicating measles required operation in 42 cases and in 1 of mumps.

There were 336 cases of rib resection with drainage, with a mortality of 15.2 per cent. Measles, lobar and broncho-pneumonia were the leading primary diseases requiring this operation when complicated by suppurative pleurisy.

Thoracotomy with drainage was performed in 93 cases, with a mortality of 25.8 per cent. Lobar and broncho pneumonia were likewise the leading primary diseases requiring this operation.

The amputations were 517 in number. Recovery occurred in 449 cases, 8 patients died, and 60 remained as incomplete. Traumatic amputation required amputation of all or part of the upper extremity in 48 cases, compound fracture in 10, and gunshot wound in 43. Crushing injury required amputation of all or part of the lower extremity in 43 cases, gunshot wound in 26, compound fracture in 9, and traumatic amputation in 8.

Tonsillectomy was performed in 3,835 cases of hypertrophied tonsils, with a mortality of one-tenth of 1 per cent. Adenoidectomy was an additional operation in 367 cases in which adenoids were associated with hypertrophied tonsils.

There were 2,155 operations for hemorrhoids. Phlebectomy was the method of operation in 690 cases, ligation in 440, and clamp and cautery in 1,009.

Nephrectomy was performed for 3 cases of hydronephrosis, 2 of pyonephritis, 1 of pyonephrosis, and 3 of nephrolithiasis, and 1 of nephritis.

Gastroenterostomy was performed for 20 cases of gastric ulcer, 13 of duodenal ulcer, and 1 of intestinal obstruction. Recovery took took place in 22 cases, 1 patient died, and 10 remained as incomplete.

The comminuted fractures requiring operation were 27 in number. Of these, 3 were reduced by the application of a plate, 3 by wiring the fragments, and 1 by bone graft. Laminectomy was performed on 1 patient and plaster of Paris cast was applied to 4. The method of operation was not stated in 6 cases.

The compound fractures requiring operation were 80 in number. Of these, 4 were reduced by the application of a plate, 4 by wiring the fragments, and 2 by bone graft.

There were 316 simple fractures requiring operation, 38 being reduced by the application of a plate, 1 by band, 6 by bone graft, and 37 by wiring the fragments. Laminectomy was performed on 2 patients.

Trephining was performed in 8 cases of head injury, with a mortality of 37.5 per cent.

The thyroidectomies were 23 in number. Of these, 15 were for simple and 8 for exophthalmic goiter.

Enterorrhaphy was performed in 4 cases for the result of traumatism. The mortality was 75 per cent.

Enucleation of the eye was performed in 30 cases for the result of traumatism; 6 were for gunshot wounds.

TABLE No. 137.—*Battle wounds, 1917.*

Number.	Traumatism.	Number.	Causative agent.	Number.	Location of tissue.	Number.	Operation.	Remaining.	Duty.	Died.	Days lost.
2	Amputation, traumatic	2	Others	1	Back and leg			1			23
				1	Leg					1	
1	Crushing	1	Aeroplane	1	Head and spine					1	
2	Fracture, comminuted	1	Other agent	1	Tibia			1			
		1	Shell	1	Astragalus			1			2
4	Fracture, compound	1	Other agent	1	Head			1			
		3	Shell	1	Humerus			1			1
				1	Occipital and ulna	1	Trephining	1			42
				1	Tibia	1	Foreign body, removal of	1			36
4	Gases, deleterious effects of	2	Gas, poisonous						2		30
		2	Others, poisonous						2		66
3	Wound, contused	1	Club	1	Abdomen			1			1
		2	Shell	1	Eye			1			9
				1	Thigh			1			16
30	Wound, gunshot	6	Other agents	1	Abdomen and head					1	
				1	Humerus			1			30
				1	Metacarpus	1	Tenorrhaphy	1			45
				3	Not stated					3	
		7	Rifle ball	1	Gluteal	1	Projectile, extraction of	1			32
				2	Head				1	1	26
				1	Radius	1	Bone fragment, removal of	1			59
				3	Thigh	1		1			1
						2	Projectile, extraction of	2			65
		12	Shell	1	Abdomen and thigh				1		10
				1	Arteries and leg					1	
				1	Frontal	1	Trephining			1	8
				1	Humerus and face					1	2
				1	Humerus and head	1	Fragments, extraction of	1			50
				1	Knee				1		1
				1	Lungs					1	
				1	Not stated				1		9
				2	Occipital			1		1	1
				1	Pleura and humerus	1	Fragments, extraction of	1			30
				1	Thorax			1			1
		5	Shrapnel	1	Back				1		84
				1	Eye	1	Enucleation	1			49
				1	Eye and forearm	1	do	1			48
				1	Head					1	
				1	Tibia	1	Projectile, extraction of	1			57
9	Wound, lacerated	7	Shell	2	Arm			2			83
				1	Face	1	Suture	1			27
				1	Occipital				1		16
				1	Temporal			1			1
				2	Thigh			2			2

		2	Shrapnel	1	Elbow and eye	1	Incision		1		23
				1	Forehead	1	Suture		1		54
6	Wound, multiple	3	Hand grenade	1	Leg	1	Fragments, extraction of		1		21
				1	Leg and head	1	Incision	1			49
				1	Thigh	1	do	1			17
		2	Shell	1	Abdomen and leg					1	
				1	Head and thigh	1	Decompression	1			58
		1	Shrapnel	1	Leg				1		22
7	Wound, penetrating	1	Hand grenade	1	Back			1			48
		3	Shell	1	Chin and occipital	1	Projectile, extraction of		1		27
				1	Scapula	1	do	1			1
				1	Thigh	1	do		1		36
		1	Shrapnel	1	Leg	1	Incision		1		19
		2	Rifle ball	1	Face					1	
				1	Gluteal	1	Foreign body, removal of	1			48
6	Wound, perforating	1	Hand grenade	1	Abdomen and arm	1	Intestinal resection	1			18
		1	Rifle ball	1	Arm				1		33
		2	Shell	1	Forearm	1	Skin graft		1		11
				1	Gluteal	1	Foreign body, removal of	1			49
		2	Shrapnel	1	Neck	1	Incision	1			45
				1	Thigh	1	Projectile, extraction of		1		43
1	Wound, punctured	1	Cutting or piercing instrument.	1	Finger, index				1		9
75	Total							39	21	15	1,629

TABLE No. 138.—*Simple fractures, 1917.*

Fracture.				Associated fracture.			Remaining.	Duty.	Discharged.	Otherwise.	Died.	Days lost.
Number.	Bone.	Number.	Location or qualifying term.	Number.	Bone.	Location or qualifying term.						
20	Acromium	19					1	14		4		335
				1	Metacarpus			1				(1)
10	Ankle (bone not stated)	9						7		2		126
				1	Clavicle	Third, middle		1				140
20	Astragalus	20					4	14		2		531
47	Carpus	47					4	34	1	7	1	956
7	Cartilage, costal	7						6		1		68
5	Coccyx	5					2	2		1		293
526	Clavicle	173					10	141		22		3,421
		21	Third, inner				2	14		5		429
		194	Third, middle				29	149		16		5,181
		138	Third, outer				20	96	1	21		2,911
3	Elbow (bone not stated)						1	1		1		(1)
129	Femur	16					8	4	1	3		810
				1	Tibia		1					(1)
		2	Both				2					234
		6	Neck				4		1	1		295
		36	Third, lower				16	13		6	1	2,369
				1	Acromium		1					60
				1	Tibia		1					51
				1	Ulna		1					5
		47	Third, middle				20	11	5	10	1	3,812
		18	Third, upper				7	8		3		963
466	Fibula	38					13	20		4	1	1,004
		371	Third, lower				93	234	4	40		12,096
		30	Third, middle				7	19		4		1,113
		27	Third, upper				4	18		5		846
46	Finger, index	46					3	43				587
67	Finger, little	67					4	58		5		885
33	Finger, middle	33					1	30		2		392
16	Finger (not stated)	7					2	4		1		72
		2	Three							2		17
		7	Two				1	5		1		99
24	Finger, ring	24					1	23				288
6	Forearm (bone not stated)	5					1	3		1		71
				1	Clavicle						1	60
4	Foot (bone not stated)	4					1	2	1			103
17	Frontal	17						14		3		194
1	Hip (bone not stated)	1						1				(1)

183	**Humerus**	22					5	12		5		751
		6	Head					5		1		118
		23	Neck				5	17		1		883
		75	Third, lower				16	43	2	14		2,399
				1	Ulna			1				(1)
		36	Third, middle				7	26		3		1,923
		20	Third, upper				5	12		3		574
10	Ilium	10					5	4		1		578
6	Ischium	6					1	3	1		1	286
3	Knee (bone not stated)	3					2	1				52
15	Leg (bone not stated)	1						1				(1)
				1	Zygoma			1				49
		1	Head					1				(1)
		6	Third, lower					4	1	1		[2] 39
		5	Third, middle					3		2		123
		1	Third, upper							1		17
19	Malar	19						15		4		120
146	Malleolus	18					2	12		4		289
		8	Both					8				338
		62	External				9	45		8		1,652
		58	Internal				12	40		6		2,043
164	Maxilla, inferior	153					17	115	1	20		4,210
		11	Bilateral				3	8				412
11	Maxilla, superior	10						6		4		96
				1	Nasal			1				19
738	Metacarpus	738					39	652	1	46		10,823
214	Metatarsus	214					32	150	3	29		5,977
241	Nasal	237					6	196		35		1,403
				1	Foot (bone not stated)			1				75
				1	Metacarpus		1					25
				2	Vomer			2				13
6	Occipital	6					2	2		2		162
14	Os calcis	14					6	5		3		517
27	Others (bone not stated)	27					2	20	1	3	1	[3] 349
22	Parietal	13					2	10			1	190
				1	Clavicle			1				45
				1	Maxilla, inferior			1				34
				5	Occipital		2	2		1		100
				2	Skull	Base	1		1			195
78	Patella	77					19	40	1	17		2,486
		1	Both				1					(1)
9	Pelvis (bone not stated)	9					1	4		2	2	233
9	Pubic	9					2	3	1	3		[4] 273
674	Radius	43					19	20		4		852
		36	Head				4	29		3		896
		4	Neck				1	2		1		52
		518	Third, lower				81	367	2	68		10,738
		48	Third, middle				8	36		4		1,220
		25	Third, upper				1	22		2		534

[1] Not stated.

[2] Total number of days lost not stated.

[3] Days not stated in 1 case.

[4] Days not stated in 4 cases.

TABLE No. 138.—*Simple fractures, 1917*—Continued.

Fracture.				Associated fracture.			Remaining.	Duty.	Discharged.	Otherwise.	Died.	Days lost.
Number.	Bone.	Number.	Location or qualifying term.	Number.	Bone.	Location or qualifying term.						
570	Rib	249					7	211		31		2,263
		37	Fifth				1	33		3		339
		2	First					2				20
		8	Four				1	5		2		184
		17	Fourth				1	16				211
		36	Lower				2	31				360
		40	One				2	36		2		322
		15	Second					14	1			245
		27	Third				2	22		3		329
		17	Three				1	13		2	1	308
		122	Two				9	103	1	8	1	1,633
28	Scapula	28					2	21		5		623
1	Shoulder (bone not stated)	1						1				(1)
95	Skull	77	Base				5	20	1	8	43	847
				1	Tibia		1					66
		17	Vault				2	5	2	1	7	229
6	Sterum	4					1	2		1		142
		1	Third, lower					1				6
		1	Third, middle					1				3
38	Tarsus	38					2	27	2	7		1,041
14	Teeth	3						3				34
		3	Five				2	1				47
		1	Four					1				5
		1	One					1				6
		1	Three					1				41
		5	Two					5				48
24	Temporal	17					3	7		2	5	402
		1	Mastoid					1				12
				1	Femur	Third, middle	1					31
				1	Frontal						1	10
				1	Maxilla, inferior					1		23
				1	Occipital						1	2
				2	Skull	Base					2	2
490	Tibia	32					8	16	1	7		795
		7	Head				4	3				296
		137	Third, lower				37	76	2	22		[2] 5,342
		73	Third, middle				21	40		12		3,268
		32	Third, upper				9	19		4		1,098
				1	Astragalus		1					22
				26	Fibula		5	15	3	3		1,069
				1	do	Neck	1					46

				115	do	Third, lower	37	56	3	18	1	5,409
				57	do	Third, middle	24	23		10		3,878
				8	do	Third, upper	2	2		4		465
				1	Radius		1					39
120	Toe	5					1	2		2		[3] 14
		22	Fifth					20		2		265
		68	First				8	55		5		1,297
		6	Fourth					5		1		61
		10	Second				2	8				148
		2	Third					2				20
		3	Three					3				129
		4	Two				1	3				127
292	Ulna	17					2	12		3		[2] 920
		9	Head					7		2		156
		19	Olecranon				5	12		2		526
		69	Third, lower				11	59		8		1,303
		41	Third, middle				7	32		2		994
		29	Third, upper				5	20	1	3		734
				1	Carpus			1				62
				1	Femur	Third, lower		1				102
				1	do	Third, upper	1					52
				1	Maxilla, inferior			1				25
				14	Radius			11	1	2		343
				64	do	Third, lower	10	45	1	8		2,735
				22	do	Third, middle	5	11	1	5		887
				4	do	Third, upper	1	3				152
35	Vertebra	14					4	4		1	5	524
		11	Cervical				3		2	1	5	382
		3	Dorsal				1			1	1	215
		2	Lower				1			1		[3] 23
		3	Lumbar					3				
		1	Three								1	
		1	Two					1				56
27	Vomer	27					1	20		6		112
18	Zygoma	18					1	17				117
5,794	Total [4]						849	4,125	51	685	84	139,383

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[1] Not stated.

[2] Days not stated in 1 case.

[3] Total number of days lost not stated.

[4] Cases remaining from 1916 included in table.

TABLE NO. 139.—*Compound fractures, 1917.*

Fracture.				Associated fracture.			Remaining.	Duty.	Discharged.	Otherwise.	Died.	Days lost.
Number.	Bone.	Number.	Location or qualifying term.	Number.	Bone.	Location or qualifying term.						
1	Astragalus	1					1					27
3	Clavicle	1					1					47
		1	Third, middle							1		114
				1	Finger	Middle		1				54
14	Femur	3								3		(1)
				1	Tibia						1	1
		5	Third, lower				1	1	1	1	1	313
				1	Ulna					1		97
		4	Third, middle				3			1		324
2	Fibula	2	Third, lower				1			1		78
1	Finger (not stated)	1						1				55
18	Finger, index	18					1	14	1	2		551
9	Finger, little	9						3	4	2		238
12	Finger, middle	12						9		3		354
5	Finger, ring	5						5				148
9	Finger	3	Three					1	1	1		139
		6	Two					4		2		237
9	Frontal	9					2	4	1		2	201
8	Humurus	4	Third, lower				2	1		1		66
		3	Third, middle				1	1		1		155
		1	Third, upper						1			7
1	Knee (bone not stated)	1					1					29
3	Leg (bone not stated)	1								1		67
		1	Third, lower					1				75
		1	Third, middle						1			16
1	Malar	1						1				37
2	Malleolus	1	External					1				38
		1	Internal				1					107
66	Maxilla, inferior	64					8	55		1		2,595
		2	Bilateral					2				75
9	Maxilla, superior	8					2	5		1		163
		1	Bilateral					1				23
10	Metacarpus	8					1	7				93
		1	Five				1					2
		1	Two					1				44
11	Metatarsus	7					2	3		2		141
		2	Five				1			1		33
		1	Three						1			8
		1	Two				1					4
69	Nasal	69					3	62		4		637
3	Occipital	3						1			2	5

1	**Os calcis**	1						1				32
3	Others (bone not stated)	8							3			82
10	Patella	10					3	6		1		944
8	Parietal	7						2	1		4	23
				1	Frontal						1	1
9	Radius	1								1		(1)
		2	End, lower					2				27
		3	Third, lower							3		134
		2	Third, middle				1	1				80
		1	Third, upper						1			91
1	Rib	1	Fourth					1				12
29	Skull	1									1	1
		21	Base				1	5		2	13	129
		7	Vault					2			5	44
2	Tarsus	2						2				212
2	Temporal	1					1					48
				1	Occipital						1	
87	Tibia	3					2	1				124
		2	Head				2					63
		7	Third, lower				2	3	1	1		156
		15	Third, middle				6	7		2		1,017
		6	Third, upper				1	4		1		333
				4	Fibula		1	1		1	1	101
				19	do	Third, lower	8	10	1			1,430
				26	do	Third, middle	13	8	2	3		1,417
				5	do	Third, upper	3	1		1		219
15	Thumb	15					1	13		1		111
25	Toe	1	All					1				34
		3	Fifth					3				115
		15	First				5	7		3		383
		2	Fourth					2				34
		2	Two				1	1				81
18	Ulna	1					1					1
		1	Olecranon					1				71
		1	Third, lower					1				30
		1	Third, middle					1				4
		2	Third, upper					2				138
				1	Occipital		1					42
				2	Radius			1		1		58
				3	do	Third, lower		3				137
				6	do	Third, middle	5	1				206
1	Vomer	1						1				3
1	Zygoma	1						1				21
476	Total[2]						93	283	17	51	32	16,187

[1] Not stated

[2] Cases remaining from 1916 included in table

TABLE NO. 140.—*Comminuted fractures, 1917.*

Fracture.				Associated fracture.			Remaining.	Duty.	Discharged.	Otherwise.	Died.	Days lost.
Number.	Bone.	Number.	Location or qualifying term.	Number.	Bone.	Location or qualifying term.						
1	Ankle (bone not stated)	1						1				252
1	Astragalus	1								1		(1)
2	Carpus	2						2				16
12	Clavicle	4						4				138
		8	Third, middle				1	7				393
5	Femur	1						1				61
		1	Neck						1			141
		3	Third, middle				3					188
6	Fibula	2						2				99
		3	Third, lower				1	2				182
		1	Third, upper					1				38
2	Finger	1	Three							1		8
		1	Two							1		21
2	Finger, index	2						2				171
4	Finger, little	4					1	3				49
1	Frontal	1						1				28
15	Humerus	3	End, lower				1	2				157
		4	Third, lower				1	2	1			197
		6	Third, middle				3	3				239
		1	Third, upper	1	Ulna					1		17
2	Malar	2						1				48
3	Malleolus							2				23
		1	External					1				46
		2	Internal					2				73
5	Maxilla, inferior	5					2	3				145
3	Maxilla, superior	3					1	2				126
21	Metacarpus	19						19				377
		1	Five				1					2
		1	Two					1				6
8	Metatarsus	6					1	4		1		184
		1	Three					1				59
		1	Two					1				36
6	Nasal	6					1	5				81
1	Parietal										1	
4	Patella						1	3				239
1	Pubic							1				136
14	Radius	1					1					10
		1	Head				1					17
		7	Third, lower					6		1		123
		5	Third, middle				1	3		1		144

1	Scapula	1					1					5
4	Skull	2	Base								2	1
		2	Vault								2	6
3	Tarsus	3						2	1			147
1	Temporal	1									1	1
44	Tibia	1					1					72
		4	Third, lower				2	2				247
		9	Third, middle				1	7		1		722
		4	Third, upper					2		2		202
				4	Fibula		2	2				305
				10	do	Third, lower	3	5	2			586
				10	do	Third, middle	6	3		1		729
				2	do	Third, upper		2				29
5	Thumb	5						5				182
7	Toe	7	First				1	6				298
12	Ulna	1	Head					1				26
		1	Olecranon				1					30
		1	Third, lower				1					120
		1	Third, upper					1				151
				1	Radius		1					12
				1	do	Head			1			160
				5	do	Third, lower	2	3				106
				1	do	Third, middle	1					39
3	Vertebra	1						1				(1)
		1	Cervicle							1		39
		1	Lumbar				1					129
199	Total[2]						45	130	6	12	6	8,614

[1] Not stated.

[2] Cases remaining from 1916 included in table.

TABLE NO. 141.—*Agents causing simple fractures, 1917.*

Number.	Causative agent.	Number.	Region.	Number.	Associated region.
39	Aeroplane	1	Abdomen		
		2	Extremity, lower		
		24	Extremity, upper		
		2	Face	1	Face.
		5	Head		
		2	Spine		
		3	Thorax		
320	Animals	2	Abdomen		
		94	Extremity, lower		
		106	Extremity, upper	1	Do.
		41	Face	1	Abdomen.
				1	Extremity, upper.
		9	Head		
		2	Spine		
		66	Thorax		
430	Automobile	6	Abdomen		
		1	Back	1	Do.
		152	Extremity, lower	2	Do.
				2	Head.
				1	Thorax.
		206	Extremity, upper	1	Extremity, lower.
		15	Face	1	Head.
		20	Head		
		2	Spine		
		28	Thorax		
71	Club	6	Extremity, lower		
		25	Extremity, upper		
		26	Face	1	Do.
		9	Head		
		1	Neck		
		4	Thorax		
1	Conflagration	1	Extremity, upper		
498	Crushing	12	Abdomen		
		332	Extremity, lower	2	Extremity, upper.
		126	Extremity, upper	1	Thorax.
		4	Face	1	Abdomen.
		3	Head		
		3	Spine		
		18	Thorax		
2.030	Fall	6	Abdomen		
		1	Back		
		531	Extremity, lower	1	Face.
		1,138	Extremity, upper	8	Abdomen.
				1	Back.
				1	Extremity, lower.
				2	Extremity, upper.
				1	Face.
				1	Thorax.
		66	Face	1	Extremity, lower.
				1	Extremity, upper
		57	Head	1	Do.
		21	Spine		
		210	Thorax		
9	Falling earth	4	Extremity, lower		
		3	Extremity, upper		
		2	Thorax		
16	Falling timber	10	Extremity, lower		
		2	Extremity, upper		
		1	Head		
		3	Thorax		
39	Jumping	31	Extremity, lower		
		5	Extremity, upper		
		1	Face		
		2	Thorax		
7	Machine	2	Extremity, lower		
		5	Extremity, upper		
150	Motorcycle	74	Extremity, lower	1	Do.
		44	Extremity, upper	1	Extremity, lower.
		8	Face		
		19	Head		
		5	Thorax		
2,006	Other agents	4	Abdomen		
		1	Back		
		402	Extremity, lower	1	Face.
		1,012	Extremity, upper	1	Thorax.
				1	Head.
				1	Abdomen.
		308	Face	1	Head.
		48	Head	1	Abdomen.
		7	Spine		
		224	Thorax		

TABLE NO. 141.—*Agents causing simple fractures, 1917*.—Continued.

Number.	Causative agent.	Number.	Region.	Number.	Associated region.
68	Other vehicles	1	Back		
		44	Extremity, lower		
		18	Extremity, upper		
		1	Head		
		4	Thorax		
74	Railroad accident	1	Abdomen		
		27	Extremity, lower	1	Head.
		25	Extremity, upper		
		6	Head		
		1	Neck		
		1	Spine		
		13	Thorax	1	Extremity, upper.
11	Stones	2	Extremity, lower		
		2	Extremity, upper		
		2	Face		
		1	Head		
		4	Thorax		
25	Street car accident	1	Abdomen		
		1	Back		
		4	Extremity, lower		
		10	Extremity, upper		
		6	Head		
		3	Thorax		
5,794	(total).				

TABLE NO. 142.—*Agents causing compound fractures, 1917.*

Number.	Causative agent.	Number.	Region.	Number.	Associated region.
4	Aeroplane	1	Extremity, lower		
		1	Face		
		2	Head		
59	Animals	26	Extremity, lower		
		7	Extremity, upper		
		22	Face		
		4	Head		
40	Automobile	20	Extremity, lower	1	Extremity, upper.
		6	Extremity, upper		
		6	Face		
		8	Head		
1	Bayonet	1	Extremity, upper		
7	Club	4	Face		
		3	Head		
1	Conflagration	1	Extremity, lower		
42	Crushing	22	Extremity, lower		
		14	Extremity, upper		
		1	Face		
		5	Head		
11	Cutting or piercing	6	Extremity, lower		
		5	Extremity, upper		
61	Fall	22	Extremity, lower		
		16	Extremity, upper		
		15	Face		
		7	Head		
		1	Thorax		
3	Falling timber	1	Extremity, upper		
		1	Face		
		1	Head		
1	Hand grenade	1	Extremity, upper		
1	Knife	1	Extremity, upper		
4	Machine	1	Extremity, lower		
		3	Extremity, upper		
19	Motorcycle	13	Extremity, lower		
		3	Extremity, upper		
		1	Face		
		2	Head		
140	Other agents	9	Extremity, lower		
		28	Extremity, upper		
		23	Face		
		7	Head		
		3	Not stated		
10	Other vehicles	7	Extremity, lower		
		3	Extremity, upper		
11	Pistol ball	6	Extremity, lower		
		5	Extremity, upper		
28	Railroad accident	10	Extremity, lower		
		7	Extremity, upper	1	Extremity, lower.
		3	Face		
		8	Head		
18	Rifle ball	8	Extremity, lower		
		9	Extremity, upper		
		1	Head		
6	Shell	4	Extremity, lower		
		1	Extremity, upper		
		1	Head	1	Extremity, upper.
2	Stones	1	Extremity, lower		
		1	Face		
7	Street car accident	1	Extremity, lower		
		2	Extremity, upper		
		1	Face		
		3	Head		
476	(total).	....		....	

TABLE No. 143.—*Agents causing comminuted fractures, 1917.*

Number.	Causative agent.	Number.	Region.
1	Aeroplane	1	Extremity, upper.
14	Animals	11	Extremity, lower.
		1	Extremity, upper.
		1	Face.
		1	Head.
21	Automobile	8	Extremity, lower.
		11	Extremity, upper.
		1	Face.
		1	Head.
3	Club	2	Face.
		1	Head.
30	Crushing	22	Extremity, lower.
		8	Extremity, upper.
1	Cutting or piercing	1	Head.
52	Fall	19	Extremity, lower.
		28	Extremity, upper.
		2	Face.
		2	Head.
		1	Spine.
7	Motorcycle	3	Extremity, lower.
		3	Extremity, upper.
		1	Head.
48	Other agents	9	Extremity, lower.
		30	Extremity, upper.
		8	Face.
		1	Head.
5	Other vehicles	1	Abdomen.
		3	Extremity, lower.
		1	Face.
2	Pistol ball	2	Head.
7	Railroad accident	3	Extremity, lower.
		2	Extremity, upper.
		2	Spine.
4	Rifle ball	4	Extremity, upper.
1	Shell	1	Extremity, lower.
3	Street car accident	2	Do.
		1	Extremity, upper.
199	(total).		

TABLE No. 144.—*External agents producing traumatisms,*

Office classification.	Causes of admission to sick report.	Bites.	Burns.	Burns, chemical and X ray.	Compression (brain).	Concussion (brain).	Contusion and contused wounds.	Crushing.	Dermatitis from traumatism.	Dislocation of joint.	Dislocation, articular cartilage of knee.	Drowning.	Epiphyseal separation.	Eye and annexa, traumatisms.	Foreign bodies.	Fracture, simple.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS.															
	Total	98	1,047	242	6	459	13,677	358	1,443	1,299	158	112	14	81	205	5,862
01–19	Total by military agents		54		1	15	281	2		4	1			8	18	71
01	Bayonet						8									
02	Club				1	15	255	2		4						71
03	Explosion of mine															
04	Gas, asphyxiative															
05	Gas, poisonous															
06	Flaming fluid		54													
07	Hand grenade						9								1	
08	Knife															
09	Pistol ball														6	
10	Rifle ball													1	11	
11	Saber															
12	Shell						1									
13	Shrapnel															
14	Cutting or piercing instruments													7		
15	Secondary missle						2				1					
16–19	Others, military agents						6									
20–29	Total by sinking ships											1				
20	Sinking ships by mine															
21	Sinking ships by storm															
22	Sinking ships by submarine											1				
23–29	Others by sinking ships															
30–39	Total by air machines					4	48	16		2						38
30	Aeroplane					4	461	6		2						36
31	Balloon						1									2
32	Parachute															
32–39	Others by air machines						1									
40–49	Total by vehicles and animals	83			2	100	3,396	279		90	4		4		1	1,067
40	Automobile				1	47	551	35		37			3		1	430
41	Motorcycle					17	191	7		10						150
42	Railroad accident				1	10	106	175		12						74
43	Street-car accident					5	37	29		1						25
44	Others by vehicles					1	167	23		4			1			68
45	Animals	83				20	2,344	10		26	4					320
50–59	Total by industrial agents		269		3	251	5,635	28		508	44		4	6	23	2,556
50	Conflagrations		9													
51	Crushing					14	1,913			27	2					498
52	Electricity		10													
53	Fall				3	232	3,623	7		478	42		4	2	2	2,034
54	Falling timbers					4	68	9		2						16
55	Fire		250													
56	Splinters													4	21	
57	Machinery					1	31	12		1						8
58–59	Others by industrial agents															
60–69	Total for extreme temperatures		149													
60	Excessive cold															
61	Heat		149													

Army, total, including officers, American and native troops, 1917.

Fracture, compound.	Fracture, comminuted.	Fracture near joint with dislocation.	Fracture, faulty union.	Gases, deleterious effects of.	Gunshot wound.	Hemorrhage and results.	Homicides.	Poisoning by food.	Secondary result of injury.	Sprain of joint.	Strain.	Suicide.	Sunstroke.	Synovitis, traumatic, undetermined.	Venomous bites and stings.	Wound, multiple.	Wounds, penetrating.	Wounds, extensive.	Wounds, perforating.	Wounds, others.	Traumatisms, others.	Killed or wounded in battle (counted above).	Total for external causes.	In quarters.	In hospital.
464	198	...	140	38	797	68	28	704	3,788	12,752	2,130	148	...	720	260	52	138	6	696	7,825	8,893	...	64,906	...	...
47	10	...	5	16	601	2	27	...	442	11	3	107	...	3	...	8	135	2	684	4,291	405	...	7,254	...	...
1	3	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	2	...	8	210	3	...	235	...	...
1	3	...	3	...	...	2	...	...	14	11	3	...	...	1	...	2	...	1	...	147	17	...	553	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	8	...	...
...	...	...	...	11	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	12	...	...
...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	58	...	...
1	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	3	7	...	1	22	3	...	59	...	...
...	...	...	...	...	...	...	4	...	18	...	...	5	...	...	...	...	7	...	1	673	14	...	722	...	...
11	2	...	...	...	242	...	17	...	69	...	...	47	...	...	...	...	61	...	343	10	15	...	823	...	...
29	4	...	2	...	323	...	5	...	189	...	...	38	...	...	...	...	38	...	320	19	104	...	1,083	...	...
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...
3	...	...	...	...	19	...	...	...	1	...	...	...	...	...	...	...	3	...	2	11	3	...	43	...	...
...	...	...	...	...	4	...	...	...	3	...	...	...	...	...	...	...	2	...	...	1	...	...	10	...	...
...	1	...	...	...	...	...	1	...	139	...	...	16	...	2	...	3	11	1	9	3,190	242	...	3,622	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	3	1	...	9	...	...
1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	2	1	...	14	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	1	...	...	...	...	1	...	...	3	6	4	...	...	...	...	4	...	1	...	19	5	...	157	...	...
4	1	...	...	...	...	1	...	...	2	5	3	...	...	...	...	4	...	1	...	19	5	...	149	...	...
...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	5	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
163	57	...	25	...	...	11	...	...	344	478	80	...	...	93	...	16	2	1	...	965	312	...	7,573	...	...
40	21	...	9	...	...	3	...	...	92	177	34	...	...	17	...	4	...	1	...	212	62	...	1,777	...	...
19	7	...	6	...	...	1	...	...	50	84	6	...	...	6	...	6	1	...	...	101	40	...	702	...	...
28	7	...	3	...	...	...	...	...	57	16	6	...	...	1	...	4	...	...	...	76	56	...	632	...	...
7	3	...	1	...	...	...	...	...	14	12	2	...	...	...	...	1	1	...	...	25	12	...	175	...	...
10	5	...	1	...	...	1	...	...	35	39	...	...	...	4	...	...	...	...	...	31	18	...	408	...	...
59	14	...	5	...	...	6	...	...	96	150	32	...	...	65	...	1	...	...	...	520	124	...	3,879	...	...
112	82	...	44	...	...	18	...	...	792	4,108	427	4	...	297	...	13	...	...	...	1,365	519	...	17,108	...	...
...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	3	2	...	16	...	...
42	30	...	8	...	...	5	...	...	241	348	27	...	...	20	...	2	...	...	...	309	56	...	3,542	...	...
...	...	...	...	...	...	...	...	...	4	...	...	1	...	...	...	...	...	...	...	...	2	...	17	...	...
61	52	...	35	...	...	12	...	...	476	3,742	400	3	...	275	...	11	...	...	...	724	408	...	12,626	...	...
3	...	...	...	...	...	...	...	...	9	8	...	...	...	...	...	...	...	...	...	14	2	...	135	...	...
...	...	...	...	...	...	...	...	...	22	...	...	...	...	...	...	...	...	...	...	...	6	...	278	...	...
...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	233	16	...	284	...	...
6	...	...	1	...	...	1	...	...	28	10	...	...	...	2	...	...	...	...	...	81	27	...	209	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
...	...	...	...	...	...	...	...	...	...	17	...	...	...	...	...	...	...	...	...	...	31	...	197	...	...
...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	9	...	19	...	...
...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	22	...	178	...	...

TOTAL No. 144.—*External agents producing traumatisms,*

Office classification.	Causes of admission to sick report.	Bites.	Burns.	Burns, chemical and X ray.	Compression (brain).	Concussion (brain).	Contusion and contused wounds.	Crushing.	Dermatitis from traumatism.	Dislocation of joint.	Dislocation, articular cartilage of knee.	Drowning.	Epiphyseal separation.	Eye and annexa, traumatisms.	Foreign bodies.	Fracture, simple.
70–79	**Total by natural causes**	..	490	....	..	4	153	4	.....	15	6	...	....	1	...	60
70	Landslides	..	.....	....	..	...	2	...	.....	2	....	...	....	....	...	.....
71	Lightning	..	.....	....	..	...	......	...	.....	.....	....	...	....	....	...	.....
72	Stones	..	.....	....	..	4	49	1	.....	.....	....	...	....	1	...	11
73	Strangulations	..	.....	....	..	...	......	...	.....	.....	....	...	....	....	...	.....
74	Falling earth	..	.....	....	..	...	13	3	.....	1	....	...	....	....	...	9
75	Jumping	..	.....	....	..	...	89	...	.....	12	6	...	....	....	...	39
76	Hot liquid	..	489	....	..	...	......	...	.....	.....	....	...	....	....	...	.....
77–79	Others by natural causes	..	1	....	..	...	......	...	.....	.....	....	...	....	....	...	1
80–81	**Total by chemicals and poisons**	..	.....	19	..	...	1	...	12	.....	....	...	....	1	...	.....
80	Chemicals	..	.....	19	..		1	...	9	.....	....	...	....	1	...	.....
81	Poison	..	.....	....	..	...	......	...	3	.....	....	...	....	....	...	.....
99	All others from external agents	15	85	223	..	85	4,163	29	1,431	680	103	111	6	65	163	2,070

Army, total, including officers, American and native troops, 1917— Continued.

Fracture, compound.	Fracture, comminuted.	Fracture near joint with dislocation.	Fracture, faulty union.	Gases, deleterious effects of.	Gunshot wound.	Hemorrhage and results.	Homicides.	Poisoning by food.	Secondary result of injury.	Sprain of joint.	Strain.	Suicide.	Sunstroke.	Synovitis, traumatic, undetermined.	Venomous bites and stings.	Wound, multiple.	Wounds, penetrating.	Wounds, extensive.	Wounds, perforating.	Wounds, others.	Traumatisms, others.	Killed or wounded in battle (not counted above).	Total for external causes.	In quarters	In hospital.
2	...	....	3	....	...	1	..	...	36	535	71	10	..	22	....	..	..	..	...	47	30	....	1,490	...	..
.....	...	....	...	....	...	..	..	...	2	......	......	...	..	.....	....	..	..	..	...	.....	.....	....	6	...	..
.....	...	....	...	....	...	..	..	...	.....	......	......	...	..	.....	....	..	..	..	...	.....	.....	....	......	...	..
2	...	....	1	....	...	..	..	...	3	......	1	...	..	.....	....	..	..	..	...	40	9	....	122	...	..
.....	...	....	...	....	...	..	..	...	.....	......	......	10	..	.....	....	..	..	..	...	.....	1	....	11	...	..
.....	...	....	1	....	...	..	..	...	1	3	1	...	..	1	....	..	..	..	...	2	1	....	36	...	..
.....	...	....	1	....	...	1	..	...	20	531	69	...	..	21	....	..	..	..	...	5	10	....	804	...	..
.....	...	....	...	....	...	..	..	...	10	......	......	...	..	.....	....	..	..	..	...	.....	9	....	508	...	..
.....	...	....	...	....	...	..	..	...	.....	1	......	...	..	.....	....	..	..	..	...	.....	.....	....	3	...	..
.....	...	....	...	....	...	..	..	...	12	......	......	19	..	.....	....	..	..	..	...	.....	86	....	150	...	..
.....	...	....	...	....	...	..	..	...	12	......	......	8	..	.....	....	..	..	..	...	.....	82	....	132	...	..
.....	...	....	...	....	...	..	..	...	.....	......	......	11	..	.....	....	..	..	..	...	.....	4	....	18	...	..
135	48	....	63	22	196	35	1	704	2,142	7,614	1,545	8	..	305	260	11	1	2	12	1,138	7,504	....	30,975	...	..

TABLE No. 145.—*External agents producing traumatisms, enlisted men in United States, 1917.*

Traumatism.	Number of cases.	Infections and complications.	Number.	Recovered.	Died.	Remaining cases.
Bites	70	Abscess	1	1		
		Cellulitis	5	5		
		Pus infection	2	2		
Burns	854	Periostitis	1	1		
		Pus infection	26	24		2
		Sloughing	1	1		
		Cellulitis	9	8		1
		Abscess	2	2		
		Erysipelas	1	1		
Burns, chemical and X-ray	184	Periostitis	1	1		
Concussion, brain	346	Cellulitis	1	1		
		Nerve complication	8	7		1
Contusion	1,869	Abscess	35	34		1
		Cellulitis	57	55		2
		Periostitis	3	3		
		Pus infection	191	187		4
		Septicemia	1	1		
		Nerve complication	4	4		
		Pulmonary complication	2	2		
		Gangrene (not infectious)	1	1		
Crushing	235	Cellulitis	2	2		
		Infection, aerogenic	1		1	
		Osteomyelitis	1	1		
		Peritonitis	1	1		
		Pus infection	2	2		
		Septicemia	2	2		
		Gangrene (not infectious)	1	1		
		Erysipelas	1		1	
Dermatitis from traumatism	1,227	Abscess	1	1		
		Pus infection	1	1		
Eye and annexa traumatisms	190	.....do	1	1		
Foreign bodies	138	Abscess	1	1		
		Peritonitis	1		1	
		Pus infection	6	6		
		Sloughing	1	1		
		Nerve complication	1	1		
		Gangrene (not infectious)	1	1		
Fracture, compound	287	Abscess	8	7	1	
		Cellulitis	4	4		
		Diffuse phlegamon	1	1		
		Gaseous gangrene	1		1	
		Osteomyelitis	5	4		1
		Periostitis	3	2		1
		Pus infection	3	3		
		Septicemia	2	2		
		Sloughing	4	2		2
		Erysipelas	1	1		
		Fracture, malunion	8	8		
		Gangrene (not infectious)	1	1		
		Loose fragments	2	2		
		Nerve complication	16	10	1	5
		Pulmonary complication	10	8	1	1
		Tetanus	1	1		
Fracture, comminuted	126	Abscess	1	1		
		Cellulitis	2	2		
		Osteomyelitis	1	1		
		Nerve complication	1	1		
Gunshot wound	577	Abscess	1	1		
		Cellulitis	1	1		
		Infection, aerogenic	2	1	1	
		Osteomyelitis	2	2		
		Periostitis	2	1		[illegible]
		Peritonitis	1		1	
		Pus infection	4	4		
		Nerve complication	6	6		
		Pulmonary complication	5	1	4	
		Gangrene (not infectious)	2	1	1	
		Fracture, malunion	1	1		
Hemorrhage and results	49	Pus infection	1	1		
Homicides	10	.....do	3		3	
		Septicemia	1		1	
		Pulmonary complication	2		2	
Poisoning, other acute	122	Nerve complication	1	1		

TABLE No. 145.—*External agents producing traumatisms, enlisted men in United States, 1917*—Continued.

Traumatism.	Number of cases.	Infections and complications.	Number.	Recovered.	Died.	Remaining cases.
Traumatisms that occurred prior to enlistment.	3,184	Abscess	20	17		3
		Cellulitis	21	18		3
		Gaseous gangrene	1	1		
		Osteomyelitis	44	31		13
		Periostitis	34	30		4
		Pus infection	45	42		3
		Septicemia	3	3		
		Sloughing	1	1		
		Nerve complication	54	48		6
		Phlebitis	1	1		
		Pulmonary complication	3	3		
		Fracture, malunion	69	65		4
Suicide	28	Septicemia	1		1	
		Pulmonary complication	1		1	
Synovitis, traumatic (cause undetermined).	542	Abscess	1	1		
		Pus infection	1	1		
		Fracture, malunion	1	1		
Venomous bites and stings	170	Abscess	10	10		
		Cellulitis	18	18		
		Peritonitis	1	1		
		Pus infection	38	38		
		Nerve complication	1	1		
Wounds, multiple	38	Peritonitis	1	1		
Wounds, penetrating	93	Infection, aerogenic	1	1		
		Peritonitis	2		2	
		Pus infection	1	1		
		Nerve complication	1	1		
		Pulmonary complication	1	1		
		Fracture, malunion	1	1		
Wounds, perforating	517	Cellulitis	3	3		
		Osteomyelitis	6	5		1
		Periostitis	1	1		
		Peritonitis	2		2	
		Pus infection	9	8		1
		Septicemia	3	2	1	
		Sloughing	1	1		
		Nerve complication	6	6		
		Pulmonary complication	4	3	1	
		Secondary hemorrhage	2		2	
		Erysipelas	2	2		
Wounds, contused	11,079	Pus infection	82	77		5
		Septicemia	3	3		
		Sloughing	3	3		
		Abscess	75	70		5
		Cellulitis	74	67		7
		Diffuse phlegmon	3	3		
		Osteomyelitis	10	7		3
		Periostitis	47	45		2
		Peritonitis	4	3		1
		Nerve complication	12	8		4
		Phlebitis	1			1
		Pulmonary complication	10	10		
		Gangrene (not infectious)	3	3		
		Secondary hemorrhage	1	1		
		Erysipelas	1	1		
Wounds, incised	1,539	Abscess	13	12		1
		Cellulitis	39	34		5
		Osteomyelitis	3	3		
		Pus infection	85	85		
		Septicemia	2	1	1	
		Sloughing	1	1		
		Intercurrent disease	2	1		1
		Nerve complication	2	1		1
		Pulmonary complication	1	1		
		Gangrene (not infectious)	3	2		1
		Erysipelas	1	1		
Wounds, lacerated	3,078	Abscess	12	12		
		Cellulitis	40	37		3
		Infection, aerogenic	1	1		
		Gaseous gangrene	1	1		
		Osteomyelitis	2	2		
		Periostitis	10	10		
		Peritonitis	2	2		
		Pus infection	121	113		8
		Septicemia	4	3		1
		Nerve complication	1	1		
		Pulmonary complication	1	1		
		Gangrene (not infectious)	1	1		
		Tetanus	1	1		
		Erysipelas	2	2		

TABLE No. 145.—*External agents producing traumatisms, enlisted men in United States, 1917*—Continued.

Traumatism.	Number of cases.	Infections and complications.	Number.	Recovered.	Died.	Remaining cases.
Wounds, punctured	1,427	Abscess	24	23		1
		Cellulitis	83	78		5
		Periostitis	2	2		
		Pus infection	117	110		7
		Septicemia	5	5		
		Nerve complication	1	1		
Abrasions	3,193	Abscess	145	137		8
		Cellulitis	211	199		12
		Diffuse phlegmon	1	1		
		Infection, aerogenic	1	1		
		Gaseous gangrene	1	1		
		Osteomyelitis	1	1		
		Periostitis	5	4		1
		Peritonitis	3	3		
		Pus infection	479	470		9
		Septicemia	5	4		1
		Sloughing	1	1		
		Nerve complication	5	5		
		Pulmonary complication	2	2		
		Gangrene (not infectious)	1	1		
		Tetanus	1	1		
		Erysipelas	2	2		
Frostbite	369	Abscess	1	1		
		Cellulitis	1	1		
Submersion, nonfatal	4	Pulmonary complication	1	1		
Traumatic amputations	256	Cellulitis	7	6		1
		Pus infection	1	1		
		Sloughing	2	2		
		Nerve complication	1	1		
		Gangrene (not infectious)	1			1
Wounds, others	1,295	Abscess	23	20		3
		Cellulitis	36	31		5
		Diffuse phlegmon	1	1		
		Periostitis	4	4		
		Peritonitis	8	2	6	
		Pus infection	50	47		3
		Osteomyelitis	8	8		
		Septicemia	2	1	1	
		Sloughing	1	1		
		Nerve complication	4	4		
		Pulmonary complication	3	2	1	
		Gangrene (not infectious)	1	1		

G. ACTIVITIES OF THE MEDICAL DEPARTMENT.

1. Chief Surgeon's Office, A. E. F.

1. GENERAL REMARKS.

It is interesting to note that, even before the staff of the commanding general arrived in France there were already there six fully equipped base hospitals. These hospitals were then at work. At the annual meeting of the American Red Cross in December, 1915, two great divisions were made in this work. First, the Department of Military Relief and, second, the Department of Civilian Relief. Col. Jefferson R. Kean, Medical Corps, United States Army, was selected as the first Director General of Military Relief. He conceived the idea of organizing complete base hospital units. His subsequent plans were approved by the Surgeon General and the formation of American Red Cross Base Hospital units was begun. Before the United States entered the war, not less than 39 of these base hospitals were organized. The full number authorized by the War Department was 50. These were completed during the summer of 1917. Each of them consisted of officers, nurses, and men, all pledged to enter the military service if called in event of war.

In addition there were also organized hospital units, ambulance companies, and surgical sections, emergency nursing detachments, and sanitary trains. The hospital units were organized to give an outlet to the desire for service on the part of many medical schools which were not of sufficient size to provide the necessary personnel for a complete base hospital. These hospital units were about one-half the size of the base hospitals and were planned for 250 beds. They have since proved of great value in manning camp hospitals in the American Expeditionary Force where the larger unit was not required. All the 17 ambulance companies organized prior to the entry of our country into the war have been incorporated into the Army Ambulance Service. Surgical sections were also organized, a considerable number of which have been called for active service.

At the request of the British and French mission, the War Department called upon the American Red Cross to furnish six base hospitals for immediate shipment to France to serve with the British Expeditionary Force. Between May 8 and 25, 1917, the six organizations sailed. These organizations were as follows:

Base Hospital No. 4, Cleveland, Ohio.
Base Hospital No. 5, Boston, Mass., Harvard unit.
Base Hospital No. 2, Presbyterian Hospital, New York City.
Base Hospital No. 10, University of Pennsylvania.
Base Hospital No. 21, St. Louis, Mo.
Base Hospital No. 12, Northwestern University, Chicago.

A Regular Army medical officer was placed in command with a Regular Army medical officer as adjutant. There was also a small nucleus of from 4 to 15 enlisted men of the Regular Medical Service.

It should be noted that on September 4, 1917, a hostile aeroplane attacked the hospital group, Base Hospitals Nos. 12 and 15, which were grouped with several British general hospitals. As a result, one first lieutenant, Medical Officers' Reserve Corps, two privates, first class, of the Medical Department, and one private, first class, Medical Emergency Reserve Corps, were killed. Three lieutenants, six privates, first class, or privates, were wounded. Thus the first members of the American Expeditionary Force to lay down their lives or suffer wounds in the great war at the hands of the enemy were not from among the combatant forces, but from those who were engaged in deeds of mercy.

The first chief surgeon of the American Expeditionary Force was Col. (now Brig. Gen.) A. E. Bradley, Medical Corps. When he later returned to the United States on account of his health, Col. (now Surgeon General) M. W. Ireland was appointed in his place.

The chief surgeon's office was organized in six divisions—1, hospitalization; 2, sanitation and statistics; 3, personnel; 4, supplies; 5, records and correspondence; 6, gas service. The chief surgeon's office was later consolidated with the Medical Department of the Service of Supplies. It was then divided into the following divisions:

1. Division of Hospitalization. Evacuation and Hospital Administration.
2. Division of Sanitation. Sanitary Inspection, and Medical Statistics.
3. Division of Personnel.
4. Division of Medical Supplies.
5. Division of Finance and Accounting.

2. HOSPITALIZATION.

A large number of hospital beds are now available, and plans are already made to provide a sufficiant number, or at least as large a number as practicable. A number of buildings are being constructed and a number are also being obtained from the French Medical Service. Hospital trains have also been provided. Two of these were purchased in France and a number from the English Government.

3. EPIDEMIOLOGY.

The hardest problem that the medical officers of the American Expeditionary Force and the Navy have to grapple with in safeguarding the health of the men is the control of epidemic diseases. Contagious diseases are found in practically all organizations arriving at base ports. This is well nigh unavoidable, due to the necessary overcrowding on shipboard, and the inactivity and lowered vitality of the men. Practically every threatened epidemic of communicable disease has been traced back to the base ports.

Weather conditions and overcrowding in billets and barracks increase the spread of these diseases. There are certain factors, however, which have been repeatedly stressed by the office of epidemiology which are capable of materially helping the situation. Among these the following should be noted: (1) The absolute necessity of personal cleanliness, (2) the danger of overcrowding, not only in the matter of bed space, but crowding about the stoves in the barracks.

As a commentary on the sometimes doubted efficiency of the Army inoculation and vaccination, it is worthy to note that after the death of an officer from smallpox and the occurence of several cases of typhoid it was found that in the smallpox case and in nearly every case of typhoid the individuals had for some unknown reason failed to be vaccinated or inoculated, or that such artificial immunization had been reported unsuccessful.

4. LABORATORY SYSTEM.

This important division has been thoroughly organized with a central laboratory in a suitable place housed in suitable buildings, which were secured from the French Medical Service. One of the main functions of this central laboratory is as follows:

> The standardization of technical methods, the supply of standard materials, diagnostic and therapeutic sera, vaccines, cultural media, special mobile outfits, and personnel for the investigation and control of transmissible diseases and the training of personnel for special laboratory problems arising during the course of the war.

This laboratory has since proved of the utmost importance in safeguarding the health of the Army. Several large base laboratories have also been established.

5. SANITARY INSPECTION.

Sanitary inspections are made periodically. There are two general sanitary inspectors on duty in the office of the Chief Surgeon. These officers make inspections of base hospitals, depots, camps, and other places as necessary. There are two especially great problems affecting the health of the Army. These are prevention of (1) skin diseases and (2) venereal diseases.

6. PREVENTION OF SKIN DISEASES AND BODY LICE.

One of the greatest problems which has arisen in maintaining the health in all armies at all times has been that of body vermin. This problem has been made especially acute in the present event because of the trench life bringing with it congested quarters in dugouts and necessarily unsanitary conditions. The experience of the British in handling this problem is brought together briefly in the following summary:

> The main factors in keeping troops free from vermin are personal cleanliness, accomplished by bathing and frequent washing of the clothes. But little help in this is given by the use of chemical agents, and their use is rather discouraged by the British authorities as producing a false sense of security.

This problem can probably best be handled by thorough and frequent bathing, frequent laundering of the clothes, with additional steam or hot-air disinfection as necessary. The disinfection and sterilizing can best be handled by the Medical Department and the laundry by the quartermasters.

7. VENEREAL DISEASES.

The American attack on venereal diseases has been upon the following lines:

> 1. The education of soldiers and civilians as to the physical dangers of venereal diseases.

2. Discouragement tending to prohibition of the use of all forms of intoxicants, the idea being that the sexual impulses are always excited by such stimulation and self-control diminished.
3. Repression of all forms of illicit sexual intercourse, both clandestine and public, under the theory first advanced by American medical men that the exercise of the sexual functions is not essential to health and manly vigor.
4. A thoroughgoing provision for, and use of, the prophylactic treatment.
5. The employment of stern measures and adequate punishment for those contracting venereal disease.
6. The calling into play of physical, social, moral, even religious factors, that might aid in keeping men free from illicit sexual intercourse and thus free from disabling venereal disease. The encouragement of the Y. M. C. A. and allied agencies in their propaganda, making for physical, material, social, and moral betterment, forms a notable example of this.

The chief surgeon is convinced that the campaign against venereal diseases which has been carried on is progressing satisfactorily and that the rate is beginning to show the satisfactory result of the campaign.

8. AMBULANCE UNITS.

For some time prior to the entrance of the United States into the war, ambulance companies had been organized in France of volunteers chiefly from colleges in the States. This movement received considerable extension in the early part of 1917 as it became evident that the United States would enter the war. It was suggested by the French mission that the United States should organize these volunteers on a military basis. The organization of the United States Ambulance Service was authorized to consist of 160 sections. Of these 120 were to be organized in the United States and 40 in France.

When the organization was undertaken there were 45 volunteer sections in operation. When arrangements had been made for the enlistment in the voluntary sections, it was found that a large number of these men did not desire to enlist, either preferring to go into a combatant branch of the service or to go home. It was therefore possible to organize only 25 sections from the American Ambulance Service. From the personnel of the 15 Red Cross sections there were only enough enlistments to make 3 sections. These sections were reinforced by a number of sections which had been organized in Allentown, Pa.

The entire United States Ambulance Service with the French Army now consists of 77 sections, 49 of which were trained and organized in Allentown, Pa., and 28 of which are the original volunteer American sections as stated above. These sections are now doing duty with the French Armies at the front, with the exception of 3 serving in the entrenched camp in Paris, one headquarters section, and half a dozen in reserve at the base camp of the service.

The service is a part of the American Expeditionary Force, and in its organization, discipline, and supply is subject to the commander in chief, American Expeditionary Force. Its men are fed, clothed, and equipped and its motor vehicles, gasoline, oil, and spare parts are furnished by the American Government. When, however, its organized units pass into the zone of the front and report for duty to the French Direction des Services Automobiles, the disposition of these units passes absolutely under the French military authority and is in every way subject, as far as movements, station, and performance of duty are concerned, to that authority. The chief of the service can not issue orders affecting the movements of units in the zone of the front, and all orders affecting individuals and material pass through the French military authorities. Outside of the zone of the front, however, the chief of the service has exercised entire control over the personnel and material and over the units of the service, as well as the individual members, and over the base camp.

9. SUPPLIES.

When it became evident that war would be declared, the Medical Department authorities immediately set about organizing the country for production. Through its medical representative on the Council of National Defense an invitation was sent to all the great manufacturers in the country who produced articles used by the Medical Department to appear in Washington for consultation. Representatives of the Surgeons General of the Army and Navy and also representatives of the Public Health and Marine Hospital Service were present at this conference and outlines of procedure were adopted. Committees on the supplying of textiles, medicines, surgical instruments, dental supplies, etc., were organized. These proceeded to communicate with all the manufacturers with the object of meeting the needs of the Government, as shown by lists prepared in the Surgeon General's Office, based on an army of 1,000,000 men.

The country had been practically denuded of many of the needed articles by purchases rendered necessary by the mobilization on the Rio Grande. A large proportion of the instruments, drugs, medical and laboratory supplies, etc., had been manufactured in Germany or elsewhere abroad, and this supply was, of course, entirely shut off. The Japanese had begun to manufacture in a modest way, but it was evident that the great bulk of medical supplies must be secured from our manufacturers. The committee on instruments allotted to various firms the articles they were best equipped to supply, and in like manner provision was made for the making of dies for instruments. The great textile mills took over and divided among themselves, in proportion to capacity, the making of gauze and articles of kindred manufacture, and the glass factories did likewise for laboratory supplies. The greatest shortage appeared to be in the procurement of sufficient dental equipment, but the large manufacturers took up this matter also and, in addition, each dental surgeon from civil life was authorized to bring with him into the military service certain articles of absolutely necessary equipment, which were afterwards inspected and appraised by a board of officers and taken over by the Government after a just valuation.

10. MEDICAL SUPPLIES IN THE AMERICAN EXPEDITIONARY FORCE.

The medical supply problem in the American Expeditionary Force was especially complicated by the shortage of available bottoms. This was partially compensated for by purchase in France, England, and other allied and neutral countries. However, the facilities of France and England being strained to the utmost has resulted both in delays in completing contracts and inability to obtain certain items.

By the middle of August about 7,000 cubic tons of supplies had been secured at * * * and 8,000 more were due on requisition. There were, however, no veterinary supplies on hand, and the only dental supplies were the personal chests carried by the dental officers. An attempt was made to secure some from the French, a dentist and a veterinarian going to Paris for consultation with the purchasing officer.

On September 4 * * * was still the only port used in unloading medical supplies. In the seven weeks succeeding the arrival of the first shipment 9,000 tons had been unloaded and forwarded. The storing facilities were wholly inadequate; consequently all goods had to be rushed from the ships to freight cars. Though credit is given to the officers at * * * in moving the supplies through to the intermediate zone, there was great confusion, and storage facilities near the port were strongly urged.

As our forces began materially to increase, more and more requisitions were necessarily incompletely filled, as the shipments from the United States did not keep pace with the demand. This condition improved a little later, and by the middle of November the chief lack was in field medical supplies.

A number of supplies has been purchased in France and England through the respective Governments. It is interesting to note that the Medical Department placed the largest individual drug order ever given in England. It consisted of more than 22,000,000 tablets and more than 13½ tons of other drugs. These arrangements for purchase in France and England helped greatly in the solution of the supply problem.

It has been difficult at times to secure adequate storage facilities for the supplies.

11. ACCOUNTING DIVISION, MEDICAL SUPPLY DEPARTMENT.

This division has had a rather interesting and unique history. It was organized and brought to France as a separate detachment.

On September 26, 1917, an act of Congress was passed authorizing the Comptroller of the Treasury and the Auditor for the War Department to perform the duties of their offices and audit the accounts of the Military Establishment at any place other than the seat of government.

A colonel of the Regular Army was informed by communication from Washington in the early part of October that he would be selected for the purpose of collecting and taking to France a force of men qualified to audit the accounts of the Medical Department in France, and was ordered to proceed to Washington for consultation. Upon arriving there he was informed of the nature of the work and directed to obtain a sufficient force to correspond to an army of 2,000,000 men. The organization of the office of the Surgeon General in Washington was taken as a model and the auditor and various other department organizations who were engaged in similar work were consulted. In order to get men qualified for the character of the work they would probably be called upon to do, all the large banks in New York, Baltimore, Washington, Philadelphia, and as far west as Chicago, and a large number of the great insurance companies, railroads, and department stores were communicated with and requested to supply the names of men with the necessary qualifications who had already been drafted and were at the cantonments. This was followed up by a ready response and a great many names were obtained only to find out later that almost all of these men had already been assigned to duties that prevented their being available. The banks were then requested to furnish lists of the men who were about to be called, and by induction and regular enlistments the desired number was obtained. From first to last, 7 officers (including the commander) and 135 men were brought to France. Many of the latter, however, were intended as clerical help in the office of the chief surgeon, supply depots, division surgeons, etc.

In November a temporary office was established at the New York Medical Supply Depot, where the work of organizing was done. Recruits were examined as to qualifications and sent to Fort Jay, Governor's Island, for physical examination and were there stationed until the date of sailing. While at Fort Jay the detachment was thoroughly drilled, and classes were held in such subjects as would likely be involved in their work in France. Here, also, supplies were collected and plans made for the procedure and work of the detachment abroad.

The first section of the detachment, consisting of the commander, 4 lieutenants, and 100 men, left the United States on January 4, 1918, arriving at * * * January 17. They remained at the rest camp at this place until January 24, when they entrained for * * *. In this town, while awaiting orders to their permanent destination, the organization of the detachment was worked out and the members assigned to definite duties when the work of the unit should begin; plans of procedure were charted, and suggestions worked out for the improvement of the methods of handling money and property accounts of the Medical Department. While at * * * 25 members of the detachment were sent to the Intermediate Medical Supply Depot No. 3 at * * *, and 5 to the Advance Medical Supply Depot No. 1 at * * *. On February 13, the remainder of the detachment was sent to * * *, their permanent stations. The preliminary work of establishing an office was immediately begun, and about the 15th of March actual work was started in the room provided in Barracks No. 66.

The second section, consisting of 2 lieutenants and 35 men, arrived in France on the 9th of February, was promptly broken up, and only 2 members and the 2 officers were later assembled with the original unit.

With numerous transfers to medical supply depots and other Medical Department organizations the enlisted force was reduced to 37 members. One of the officers was sent to Paris for duty with the bureau of accounts, and one to the office of the purchasing board. On April 1 the unit was attached to the office of the chief surgeon, and has since operated as the finance and accounting division of that office. Then on May 1 the personnel of the chief surgeon's office and that of the finance and accounting division were consolidated.

Regarding the report of money and property operations of the Medical Department above mentioned, it is interesting to note that testimony has been received from the bureau of accounts, the Assistant Auditor for the War Department, and the Comptroller of the

Treasury that the Medical Department is the first department to submit such a report. The chief of the bureau of accounts desired to show the report to the chiefs of the various departments as a sample of what was possible along this line. It should also be noted that the Medical Department is the first of the departments to attempt to coordinate the financial and property operations in the United States and those of the American Expeditionary Force.

The question is often raised as to the value of accounting work to the actual prosecution of the war. Regarding this question two very important points have been clearly brought out in the work of this division. (1) The work is of great importance to those actually engaged in the prosecution of the war as making it possible for them to render an account to the people of the United States for the vast sums of money they have expended, as well as to assist in the economical expenditure of the same; (2) but, of far more importance than this, the accounting division is actually aiding in the efficient prosecution of the war as far as it concerns the Medical Department by helping to put the business dealings of the department with the French and English on a sound and equitable foundation. Many instances might be cited to show how intricate problems of business relations between the French and Americans have been tactfully adjusted, so that while amicable relations might continue, it would become clear that efficient service was demanded.

II. Division of Sanitation.

1. INTRODUCTION.

The mobilization of the National Guard, the concentration of the Regular Army into large camps, the hurried recruiting of the regular forces, the mobilization of the National Army, the great force of drafted men suddenly called from home life to a new environment, all these conditions have required the application of the total professional knowledge of the country to the vast and relatively new sanitary problems involved. The sudden call for shelter, food, clothing, conservancy, medical attendance, and the other things necessary to the health of the soldier could not be met at once in a manner wholly perfect.

It is a matter of history that all campaigns have been accompanied by epidemics of those diseases more or less peculiar to great aggregations of men. In the light of modern accomplishments in preventive medicine we expect that these Army diseases will be kept at the minimum, though not absolutely prevented. The mobilization, concentration, and movement of troops during the past year have been no exception to the general rule. Some epidemics have occurred, and the morbidity and mortality rates in the camps and cantonments have been higher than the minimum desired. These minimum rates have by no means been reached, but the present handling of a constant stream of men in the camps and cantonments will result in the formulation of improved laws of military hygiene, the application of which, it is expected, will allow large numbers of men to be brought into camp and to live there, with the minimum dissemination of the camp diseases.

The old Army scourge, typhoid, together with the paratyphoid group, has been practically eliminated by prophylactic inoculation with triple vaccine. The other intestinal infections have been controlled by general sanitary methods. The class of diseases now of importance throughout the Army is that group in which the method of spread is by means of secretions from the respiratory tract, viz, meningitis, pneumonia, measles, diphtheria, scarlet fever, and mumps. With the experience of the past year as a guide and with the aid of the best medical talent of the country, it may be confidently expected that the study of these diseases will yield new facts regarding the modes of infection and the methods of prevention which will prove of immense benefit not only to the soldiers during the present war, but also to the entire population of the country thereafter.

2. THE WORK OF THE DIVISION OF SANITATION.

Organization.—A division of field sanitation was informally established on May 24, 1917, by the assignment of an experienced sanitarian from the Medical Corps of the Army. Additional personnel has been added from time to time and the functions of the division have gradually expanded to embrace the whole subject of general military sanitation. For administrative purposes, the division is subdivided into sections which are indicated below:

(*a*) *Section of inspection.*—A group of specially trained medical officers of long service is constantly engaged in making routine and special inspections of all large camps, cantonments, hospitals, and other stations. Their duties originally pertained chiefly to sanitary and administrative matters within camps and cantonments. As the service of hospitals developed, their duties were extended to include hospital inspections also. One of these inspectors is stationed at San Antonio, Tex., and visits the large stations in the Southern Department. The other officers are stationed in Washington and return to that city after their inspection tours, spending about half their time in office duty. This system enables the Surgeon General to keep in close personal touch with the sanitary situation at all stations. The officers making inspections, upon their return to Washington, confer personally with the departments and divisions concerned in the correction of sanitary deficiencies and take a personal interest in following up such matters and obtaining such remedial action as is practicable. It has been found that in most instances this procedure secures far more rapid and satisfactory results than can be obtained by the usual written report emanating from the command where the defect exists. At the conclusion of an inspection the sanitary inspector makes a report to the commanding officer regarding the defects he has found, and submits recommendations for such remedial action as lies within the power of local authorities.

The scope of the sanitary inspection differs materially from that made by the Inspector General's department. Less stress is laid on details of a purely military nature and much more stress is laid on matters largely technical, such as general camp sanitation, nursing and professional care of the sick, competency of medical officers, handling of infectious diseases, prevention of venereal disease, management of quarantine and detention camps, extra cantonment health activities, medical supplies, hospital construction, laboratories, special diets, training of sanitary trains, mosquito eradication, water purification, sewage disposal, etc. A medical officer who has expert knowledge of the louse problem makes inspections with a view to determining the prevalence of lice and the steps necessary for their eradication. Inspections relating especially to technical sanitary engineering problems are made by officers belonging to the sanitary engineering section of this division.

(*b*) *Section of communicable diseases.*—This section is composed of officers who are specially trained in the study and control of communicable diseases. The work of the section includes the preparation of graphic charts and reports for the use of the Surgeon General and for general dissemination. The activities of this section are indicated by the report on communicable diseases appearing under Paragraph 14.

(*c*) *Section of sanitary engineering.*—This section, consisting of officers of the Sanitary Corps with training as sanitary engineers, advises on questions of water supply, sewage disposal, drainage, and mosquito control in all camps, cantonments, and other stations. Every large camp has one or more officers of the Sanitary Corps on duty as assistant to the camp surgeon. These officers supervise drainage and mosquito work, and in some camps have charge of the operation of water purification and sewage-disposal plants and the handling of garbage.

At several of the southern camps where there was a probability that malaria might occur, enlisted men of the Sanitary Corps have been assigned in detachments varying from 50 to 200 men for the purpose of furnishing the actual labor required in connection with drainage and oiling operations. This has been necessary in view of shortage of civilian labor in many localities. These enlisted men are colored. White men of the Medical Department have also been assigned as overseers of enlisted laborers from labor battalions. This force is under the immediate control of an officer of the Sanitary Corps.

(*d*) *Section of current vital statistics.*—This section receives and compiles current statistics relating to morbidity and mortality rates, based on daily and weekly telegraphic reports from camps and stations in the United States and the weekly cable from forces overseas. Publication and general distribution of the "Weekly Bulletin on Disease Conditions among Troops in the United States" has been carried out and the mailing list numbers about 300. The statistics compiled by this section are used as the basis of a weekly summary of health conditions which is prepared by the chief of the division and given to the press for publication. These statistics are also used by the section of communicable diseases for the preparation of graphic charts and tables. Although not mathematically correct, mistakes and corrections being inevitable, these figures are sufficiently accurate for all practical current purposes in the current medical administration of the Army stations. The weekly report to the Secretary of War and the Chief of Staff and the system of compilation have been the subject of much favorable comment, and the report made use of by other bureaus of the War Department in compiling current statistics.

(*e*) *Section of personnel.*—This section is engaged in the mobilization of trained medical personnel for the camps, for mobile divisions, and for other stations and organizations; the changes in their distribution; and the recording and listing the medical staffs of the camps. The chief medical officers, division surgeons, camp surgeons, sanitary inspectors of divisions and camps, depot brigade surgeons, epidemiologists, and assistants of special importance are selected by the division of sanitation and are held to account for the proper performance of their duties. There has already developed an acute shortage of trained medical officers for the important administrative duties, but by a process of gradual training of subordinates for higher positions it is fully expected that satisfactory personnel will ultimately be fitted into all of these positions.

The following subjects with which the division of sanitation has been concerned have been of especial importance and are separately discussed:

3. CAMPS AND CANTONMENTS; ACCOMMODATIONS FOR ENLISTED MEN, AIR SPACE AND VENTILATION; OVERCROWDING AND ITS EFFECT UPON THE TRANSMISSION OF DISEASE.

The original plans for the concentration of the Army were for 32 large stations. Sixteen were for National Guard divisions. These were camps with floored and framed tents and wooden mess halls, kitchens, and regimental infirmaries. Sixteen were for National Army divisions, to be composed of drafted men housed in frame cantonments.

The cantonments to be built for the new divisions were needed at once and plans were drawn by the construction division of the Quartermaster General's Office. The barrack plans were objected to by the Surgeon General, and a "board to examine the housing plans" was appointed by the Secretary of War. This was composed of the Surgeon General and three eminent officers of the Medical Reserve Corps.

The board found two grave sanitary defects in the plans: "First, overcrowding, i. e., the men in the dormitories are too close together; and, second, there are too many men in each dormitory. The amount of cubic space allowed to each man averages about 338 cubic feet. This is altogether too small." The board recommended that the cubic air space per man be increased to 500 cubic feet; that the unit to be housed in each barrack be reduced to 30; that changes be made in the plans to secure increased space and ventilation; and that additional barracks be built to lessen the crowding.

When the drafted men were accommodated in the barracks of these cantonments it was found that, as a result of military necessity, overcrowding was the rule and that new cases of pneumonia and meningitis were becoming so frequent as to occasion alarm. It was therefore recommended that the cubic space and the square floor space per man be immediately increased so as to provide a minimum of 500 cubic feet and 45 square feet, respectively, in each squad room; that in all barracks the men be required to sleep with the feet of one man opposite the heads of the two adjacent men, this to allow of at least 5 feet separation between the heads and so decrease the chances of spreading respiratory diseases by droplet infection; that the placing of bunks in groups of twos or fours should be prohibited; and that where double-deck bunks were used, the cubic air space and square floor space should be 1,000 and 90 feet, respectively.

Later, because of the rapidly increasing military force and the tendency to overcrowd men in barracks, it was recommended that the authorized man capacity of barrack dormitories be stenciled on the doors, the standard to be 50 square feet of floor space and at least 500 cubic feet of air space per man. The newer barracks are planned to house not over 34 men in a room, and the individual rooms are not connected with each other.

In the National Guard tent camps it was originally the intention of the War Department to house 12 men in one tent. This was because of a shortage in tents; and it was planned to reduce the number to 9 when the tentage supply was increased. Overcrowding in the tent camps became increasingly important and after a personal inspection of certain camps, the Surgeon General recommended that no more than 5 men be accomodated in one tent, which would allow a little over 50 square feet of floor space for each man. Because of the shortage of tents it was not possible at all times to secure this increase in floor space.

It may be stated that these recommendations were acted upon in as far as the War Department felt able to carry them out and that the improvements brought about in floor space and air space are now the rule rather than the exception. The danger from overcrowding is undoubtedly in the increased opportunity for droplet infection from man to man.

4. CLOTHING OF ENLISTED MEN.

The mobilization of the National Guard and the concentration o drafted men into the cantonments began in August, 1917. Reports at once began to be received in this office of shortage of clothing in both camps and cantonments. Regular Army units also reported this condition. There was a particular shortage of overcoats. Outer garments were generally of khaki; and woolen underwear, which was intended to make up for the shortage in woolen outer clothing, was frequently not sufficient in amount. There was also an insufficient supply of blankets.

This serious deficiency, which resulted from the military necessity of calling a large number of men to the colors before sufficient clothing could be provided, existed well into the winter and it was not unti February, 1918, that the reports from the commands indicated tha the enlisted men were adequately clothed. The exposure to which the men were subjected in the cold weather of the winter of 1917 undoubtedly was one of several predisposing factors in the causation of sickness in camps.

5. WATER SUPPLY, SEWAGE DISPOSAL, GARBAGE DISPOSAL, ETC.

With the increased population of Army concentration points particularly in the National Army cantonments and the Nationa Guard camps, the questions of adequate water supply, sewage treat ment, garbage disposal, etc., has been of increasing importance The large tent camps were originally without sewers, and the pi latrines, although generally maintained in good sanitary condition used up large areas of ground. For this reason the consideration of another method of sewage disposal became necessary. Sewers are now being built in these camps which will take care of this problem, but with an additional demand upon the water supplies which in some camps have never been satisfactory in amount. The sewage disposal plants of the cantonments were built to accommodate a certain strength of command which has generally, of necessity, been greatly exceeded with a resulting improper treatment of sewage. Numerous complaints have arisen, inspired by the nuisances resulting within or outside the reservations. Extensive alterations have been recommended.

These subjects have been investigated and recommendations have been made in regard to them by a staff of expert sanitary engineers on duty in this division. Certain aspects of the treatment of sewage and water supply have necessitated original study of the problems, new data being required on which to base specific recommendations.

6. MOSQUITO PREVENTION AND CONTROL.

The situation of Army cantonments and camps in malarial regions and the importation into them of malarial carriers have placed particular emphasis upon this problem. Extensive drainage projects have been surveyed and carried out by sanitary engineers of this division, and very considerable amount of maintenance and other anti-mosquito measures is now going on under the immediate care of the Medical Department. Recommendations were made early in the year for the screening necessary to prevent the entrance of mosquitoes into buildings occupied by the men. These recommendations include screen vestibules, requiring passage through two screen doors, at all Southern camps. The importance of detecting and treating malaria carriers has been emphasized.

7. FLY PREVENTION AND CONTROL.

The importance of this subject has not been minimized. Recommendations have been made for fly trapping, fly "swatting," poisoning and the use of fly papers, along with the methods for the prevention of breeding which are generally known to the Army and have constantly been enforced. Traps, paper, and "swatters" are now regularly furnished by the Quartermaster Corps. Screening of kitchens, barracks, and latrine shelters has been pushed.

8. MOVEMENT OF TROOPS; INSPECTIONS MADE TO PREVENT TRANSFER OF SICK.

Military considerations have been the governing factors in the movements of troops from camp to camp. Transfers from National Army camps were made to fill up National Guard divisions, and transfers of detachments composed of special details were common during the early history of the camps. Some of these movements were made over long distances, so that men were kept for two or more days in the coaches of troop trains. Epidemics have been traced in some instances to these movements. In order to prevent, as far as practicable, the transference of men sick with communicable diseases, recommendations were made that no troops be permitted to leave one station for another, or for overseas, without critical inspection for the detection of possible disease, and also that contacts of meningitis, measles, and scarlet fever cases, and also those infected with venereal disease, be retained at the station. Instructions were issued by the War Department directing compliance with these recommendations, and also requiring that similar inspections be made at ports of embarkation before commands were allowed to board ship. This led to a marked congestion of "contact cases" at ports of embarkation. Certain cases of infectious disease, unrecognized during the inspection made at the station of departure, appeared en route to the ports, or were later detected and excluded from the embarking command. With the rapid movement of troops to the embarkation ports, a considerable piling up of sick, of contacts and of "carriers" at these points became inevitable. Suitable hospital accommodations were at hand or were secured, however, and the troops which were marched aboard the transports were as effectually screened of their sick and contacts as was possible.

9. LOUSE INFESTATION.

The contact of individuals aboard transports is very intimate and conditions are such that the transference of parasitic insects from man to man is unusually easy. This is especially true as regards the louse. Reports from abroad indicated that commands debarked "over there" were frequently carrying a high percentage of louse-infected men. This question has been carefully studied by the expert entomologists of this division. Based upon their reports, delousing stations have been recommended at certain embarkation ports, at all large camps and at recruit depots. It has been found that the percentage of louse infestation among the colored stevedores and the labor battalions is considerable, and that the white soldiers are relatively free from lice. The possible importation, by returning troops, of lice which are infected with typhus and trench fevers is regarded as a problem worthy of the closest attention, and the delousing plants recommended will serve the double purpose of cleansing the outgoing and the incoming troops.

10. UNCINARIASIS.

The presence of hookworms in the men coming from the Southern States was considered an important predisposing factor in the causation of the infectious diseases which have been disproportionately frequent among these men. This is in accord with the findings of Army medical officers who have studied this question in previous years. This division has taken steps to secure the extermination of the worms in infested men from Southern States. Extensive surveys made by the laboratories in the camps have been followed by immediate treatment of the infected.

11. THE PHYSICAL EXAMINATION OF DRAFTED MEN.

The national defense act, in its application to the physical examination of the drafted men, has resulted in many readjustments of the routine methods of recruiting formerly in use in the Army. The examinations of registrants by local boards at their homes, and again by Army medical officers at camps, have not been as homologous as could have been desired. The original standards prescribed by the Provost Marshal General for the local boards were not the standards which were required by the Regular Army. Rejections in camp were often regarded as criticisms of the professional abilities of the physicians of local boards, while Army medical officers were apt to regard the selectives sent to them as poor material out of which to select soldiers.

The standards for volunteer enlistments in the Regular Army were used at recruit depots for the examination of registrants inducted at the depots and rejections were often made of men who were passed by local boards under the selective-service regulations. Modifications and adjustments of the regulations became necessary as it developed that men who were accepted for service and had undergone training finally to be dropped as unfit for overseas service, their places being filled by untrained men from the later drafts. This was an expensive process for the Government and interfered seriously with the training of troops.

A board of medical officers was appointed to revise the physical standards, and as a result there is now a fixed standard for the physical examination of all men entering the Regular Army, the National Guard, and the National Army. All medical examiners have been issued similar regulations, the local boards having been supplied by the Provost Marshal General and officers of the Army by The Adjutant General. Already a marked improvement has resulted.

12. EXTRA CANTONMENT AREAS.

The territory contiguous to Army camps and stations has generally included various cities and towns in which sanitation has often been neglected. These communities are dangerous to the health of the commands unless brought up to the same standard of sanitary regulation as is required for the camps. By statutory provisions their administration is charged to the local authorities, municipal or State, under the supervisory control of the United States Public Health Service. The Public Health Service has stationed officers of its service at the most important points, where they act in conjunction with the local authorities in the education of the local public and the initiation and maintenance of proper health activities. Frequently they are appointed deputy health officers and are given authority to enforce the local regulations which, in turn, are often drawn up by themselves. At those places where the Public Health Service has not been able to send representatives, the Army medical officers have been authorized to exercise a similar control. Such a system, by which the local health officials, the United States Public Health Service and the Army cooperate in the prevention of disease in both camps and surrounding territory, has resulted in the prompt notification of unusual health conditions, the control of epidemics, the sanitary regulation of eating and drinking places, public water, milk and other food supplies and their handlers, the prevention of flies and mosquitoes, the disposal of waste and excreta, the care of ice plants, the control of prostitution, the treatment of the venereally diseased, the prevention of illegal liquor dealing, etc.

13. SANITARY REGULATION.

A compilation of information on military hygiene and a summary of important sanitary measures to be employed in camps was made by the Division of Sanitation, and upon its recommendation was published by the War Department to the Army in the form of "Special Regulations 28." Compliance with its provisions is required by order. This is now a standard uniform guide for the sanitary control of all Army stations. Additional paragraphs are put in force as circumstances demand, the most important being paragraph 18½ on the subject of louse infestation. The efficiency of medical officers and of medical administration is estimated by special sanitary inspectors from the division who instruct and correct medical officers and report upon the sanitary administration of camps and stations in accordance with the requirements of these regulations.

14. COMMUNICABLE DISEASES IN GENERAL.

The prevention of diseases in military camps has long been considered one of the chief functions of the senior medical officer. Upon the organization of the first divisions this point was impressed upon the medical officers assigned as division surgeons. These officers have universally paid unusual attention to this subject, and it has been the subject of greatest concern to this division. At the outset of the mobilization, daily telegraphic reports of the incidence of meningitis and pneumonia were required by this office and weekly consolidated reports of all infectious diseases. In view of the fact that troops were brought into camps and cantonments before the completion of barrack construction and before there were adequate hospital facilities, in the light also of the overcrowding and insufficient clothing which have been indicated above, the Division of Sanitation points with a great deal of pride to the morbidity and mortality rates of the Army during the past year. The diseases causing the greatest number of deaths were those that are spread through the secretions from the respiratory tract—pneumonia, meningitis, measles, scarlet fever, and diphtheria. Together with tuberculosis these diseases caused 77 per cent of all deaths for the period from September 29, 1917, to March 29, 1918, during which period the weekly telegraphic reports have been carefully analyzed.

Measles was epidemic in nearly all the camps and appeared within a few weeks after mobilization, prevailing throughout the greater part of the winter of 1917. Pneumonia appeared in every camp and to an unusual degree in some. Empyema was a frequent complication, particularly in streptococcus pneumonia. Scarlet fever and meningitis appeared in epidemic form in certain camps, and occurred sporadically in all. Diphtheria was relatively infrequent and the deaths resulting were few.

Two points stand forth:

(1) The camps differed greatly in their disease and death rates.

(2) The high disease and death rates were almost exclusively confined to troops from the Southern States.

From the statistics studied it has been demonstrated very clearly that there has been a low death rate among northern and eastern troops and a high death rate among southern troops. The western troops occupy an intermediate position. There are a number of explanations for this.

(*a*) There is more acute respiratory disease among rural than among urban troops. Men from rural districts have not acquired immunity to these diseases in childhood as have the city men. Southern troops come largely from sparsely settled rural districts.

(*b*) Southern troops appear physically less robust than those from other sections, doubtless due in part to the widespread dissemination among them of such debilitating diseases as hookworm, malaria, and pellagra.

(*c*) Southern troops are relatively less familiar with the fundamental elements of personal hygiene and sanitation than are those from other sections of the country.

As protective measures against these diseases, the Army has followed the policy of frequent medical inspections of troops, isolation and quarantine of the sick, segregation of contacts, and determination of disease carriers and their isolation. The supreme importance of a natural protective immunity against disease is demonstrated by the failure to curb disease among Southern troops, where immunity did not exist and yet where the several measures of control referred to above were in effect.

The most promising measures for combating respiratory diseases—the diseases of crowded communities—is in the development of protective vaccines or sera and in the education of the soldier, or, better still, of the man before he becomes a soldier, in the elements of self-care, personal hygiene, and community sanitation. A vaccine for pneumonia has been prepared and is being used with promising results among volunteers.

The statements made above are an assurance to the public that the control of the group of respiratory diseases, now such a menace to the southern soldier, is by no means hopeless. With our present knowledge, strengthened by this study of our experience during the past year, the solution will, it is hoped, be found in continued study and experiments now going on. A board of medical officers has been appointed by the War Department to make an intensive study of pneumonia and important results are looked for.

Dust as a predisposing factor in the causation of respiratory diseases in certain camps has frequently been reported and has been considered of sufficient importance to justify recommendations for the oiling of roads and camp sites as a preventive measure. It has been the experience of medical officers of the Army that pneumonia has been unduly prevalent when there has been a large amount of dust at a station where troops were congregated. At one dusty camp in this country, two severe dust storms were followed on each occasion by a rapid increase of influenza, a great many cases of which were complicated by streptococcus pneumonia.

Contact infection by droplet transmission is of the greatest importance in the spread of the respiratory diseases, and detailed instructions to medical officers were issued by this division requiring the adoption of the cubicle system in the isolation wards and other wards of hospitals which were used for the treatment of respiratory infections. Cubicles were improvised by means of sheets suspended between the hospital beds, and aseptic methods, including face masks, were practiced by medical officers, nurses, and other attendants engaged in treating these patients. In barracks wide separation of the heads of the sleepers and free ventilation have been advocated as one measure to prevent droplet infection.

The occurrence of communicable diseases in camps and cantonments leads to an appreciation of the necessity of having in each camp a medical officer who could be free to devote his entire time and energy to the control of these diseases. This was in line with the modern methods of public health organizations in progressive communities and so the position of camp epidemiologist was established. It has been possible to select especially well-trained and well-informed officers for this duty and to assign them to all camps in which communicable diseases were at all frequent. Practically all of the large camps now have such an officer on the medical staff and these epidemiologists have been able to relieve division and camp surgeons of a large amount of important detail work, and to give intensive study to disease problems. Some division commanders and their surgeons have been so impressed with the utility of these specialists that they have developed for their division officers capable of carrying on the work after the departure of the division overseas. The study of epidemics has been further extended to certain States whose chief executives have requested the assignment of medical officers to duty with State boards of health whose special function is to act as liaison officer between the State officials and the camp authorities, keeping the latter informed of the prevalence of communicable diseases in communities from which men are being sent into the Army camps.

A most careful study of the incidence of infectious disease in the large camps has been made by the chief of the section of communicable diseases. This report will be published in full. The following abstract of a report is of much interest:

15. REPORT ON COMMUNICABLE DISEASES IN THE ARMY DURING THE WINTER MONTHS OF 1917 AND 1918.

[Statistics all from weekly telegraphic reports.]

The mobilization of such a large army as has been accomplished during the year is of special interest to the sanitarian and the epidemiologist. During the past 12 months more than a million men have been assembled in our camps, held together for intensive training, and sent over the sea. At present another million is being assembled and will go through a like process of training and join their comrades on the battlefields of France. These men have come from every section of the great country, from every class, without reference to previous social status, educational qualification, or personal habits. They have come from infected and uninfected localities. Immunes, susceptibles, infected have been brought together in the close contact which is a necessity in every military organization. To accomplish this great task without more or less spread of infection is an impossibility. Fortunately, advances in general sanitation, in water purification, and in garbage and sewage disposal, in protective measures against typhoid fever by vaccination, have largely eliminated from armies the intestinal diseases. If the morbidity from typhoid fever had been as great in the army during the months covered by this report as it was during the same time in certain civilian populations, there would have been more than 50,000 cases of this disease in the Army; whereas, in fact, there were less than 200 cases all told and less than 10 deaths in a million and a half of men. The unsanitary conditions as seen at Camp Alger and at Jacksonville and Chickamauga in 1898 do not exist in this country to-day.

A. DEATHS IN THE ARMY.

It was seen long before the assembly of troops was begun that the acute respiratory diseases would be the greatest factors in morbidity and mortality. With this in view the Surgeon General has insisted that at least 45 square feet of floor space and 500 cubic feet of air space should be allowed each soldier. It has been necessary, however, in some camps and during certain portions of the time to fall below these individual limits, and there have been camps in which the floor space per man has been reduced to two-thirds and even to one-half that mentioned above. Crowding is a military necessity, and by crowding we do not mean altogether the amount of space allowed in sleeping quarters. In fact, crowding during the hours of sleep, undesirable as it is, is less likely to aid in the dissemination of diseases, especially the acute respiratory diseases, than is crowding during the waking hours. During the day time men are coughing, sneezing, expectorating and otherwise discharging bacteria from their respiratory passages, and these are being inhaled by those in close contact with them. By these means the acute respiratory diseases are disseminated. Take, for instance, an assembly hall which accommodates several thousand. If every man in this hall, when all the seats are occupied, sits perfectly upright, the greatest distance possible between his nose and that of the man in front or behind him is 26 inches, while the distance between his nose and those of the men on each side of him is not more than 16 inches. With men thus placed and many of them coughing and sneezing it will be easily understood that the air is constantly filled with a spray laden with bacteria.

The death rate in the Army should be compared with that for the same age period in civil life. The comparisons should be made on the records for the same season of the year and so far as practicable for the same year. Through the courtesy of the health and vital statistics departments of certain States and cities, it has been possible to make this comparison. The greater number of enlisted men are between 21 and 31 years of age. The period corresponding to this available in civil statistics is the age from 20 to 29 years.

The following points should be borne in mind:

(*a*) The death rate of the group 20 to 29 years is lower than that of the present draft age 21 to 31.

(*b*) The death rate in these age groups is greater among males than among females. In fact, the death rate from pneumonia during this age is 40 per cent greater among males than among females.

(*c*) The Army includes more above than below the draft age.

In all these respects comparison is to the disadvantage of the Army. The following table gives a comparison of the annual death rate in the Army, with that of certain cities for the same period and for the same age group. The figures are based on weekly telegraphic reports.

TABLE NO. 146.—*Annual death rate per 1,000 in Army, compared with leading cities, United States (age 20 to 29 years; time, October, November, December, 1917, January, February, March, 1918).*

Place.	Death rate.	Place.	Death rate.
United States Army	9.1	New Orleans	10.4
New York City	5.5	Pittsburgh	6.2
St. Louis	5.5	Chicago	5.2

It is a striking fact that the death rates in the different camps show wide variation as is indicated in Table 147.

TABLE NO. 147.—*Annual death rates per 1,000 in United States Army within cantonment limits of United States, based on period Sept. 29, 1917, to Mar. 29, 1918.*

National Guard.	Rate.	National Army.	Rate.
Wheeler	28.3	Pike	30.7
Beauregard	25.4	Jackson	19.9
Bowie	23.1	Funston	16.3
Sevier	25.5	Travis	15.3
Cody	12.7	Lee	10.8
Doniphan	11.9	Dodge	9.1
Shelby	8.6	Taylor	9.0
Kearney	8.1	Gordon	7.8
Sheridan	2.8	Sherman	5.4
Hancock	2.6	Upton	5.3
Wadsworth	2.5	Custer	5.1
McClellan	2.4	Lewis	4.1
Logan	2.3	Meade	3.9
		Grant	3.8
		Devens	3.7
		Dix	2.9

It will be seen from Table 147 that five National Guard camps (Sheridan, Hancock, Wadsworth, McClellan, and Logan) have shown lower death rates than New York City, St. Louis, New Orleans, Pittsburgh, and Chicago for the age group 20 to 29 years. Two more National Guard camps (Shelby and Kearney) show lower death rates than New Orleans for this age group. Six National Army camps (Custer, Lewis, Meade, Grant, Devens, Dix) show lower death rates than any of the above mentioned cities. Two other National Guard camps (Sherman and Upton) are about on a level with New York City, St. Louis, and Chicago, and below Pittsburgh and New Orleans. Three more National Army camps (Dodge, Taylor, and Gordon) are below New Orleans. These facts demonstrate that camp life may be made as safe as that of some of our best health-guarded cities, and indeed may show a lower death rate in the corresponding age group. This is the goal which should be striven for. Of course the death rate among selected soldiers should be lower than among the population at large of the same age groups.

The great differences in death rates in the various camps have furnished a sanitary problem worthy of the most serious and detailed study. The following facts stand out most prominently:

(*a*) The location of the camp, whether in the South or in the North, the camp site, and the surroundings, have not been predominant factors in the causation of disease.

(*b*) Crowding, lack of clothing, fatigue, improper food, lack of heat or ventilation, and dust in camps have not played the most important rôle in morbidity or mortality.

(*c*) Men from rural communities are more susceptible to the acute respiratory diseases, and especially to pneumonia, than are those from urban life.

(*d*) On the whole the Southern soldier is much more susceptible to these diseases than his Northern comrade.

Pneumonia is an urban or a crowd disease in both civilian and military life. Our camps are the most crowded cities in our country, and consequently they furnish the highest rates for the respiratory diseases. The man who has lived in a densely populated area is more resistant to these diseases because he has been exposed to the same bacteria before, probably many times, and has acquired more or less immunity, or at least an increased resistance. For a converse reason, the man who has lived in a sparsely settled community is the more susceptible, because he has never before, or has not recently, harbored these bacteria. As previously stated, location of the camps has had nothing to do with the diseases prevalent in them, or at most, but a little to do therewith. There are certain geographical areas in which both good and bad camps are situated. However, when a map is made and the camps are placed not where they actually exist but each camp in the center of the population from which its troops came, then all the healthy camps are in one area. This area is included in lines drawn down the Atlantic coast from Maine to about the northern border of Maryland, to the Mississippi River, then north to the western end of Lake Superior. From this region came the healthiest soldiers in our camps, and they were the healthiest because they had greater resistance to those organisms which caused the acute respiratory diseases. There are possibly other factors involved in this problem. The Southern soldier is more susceptible largely because he has never, or but rarely, been brought in contact with the bacteria causing these diseases, and when contact does occur he displays but little resistance. Measles is much more common in the Southern States than in the northeastern district where we find the most robust soldiers coming from. The farther south one goes the more deadly is pneumonia. It is the more deadly because it is rare, and when introduced it falls upon virgin soil and the organism grows with greater intensity, and acquires marked virulence.

In the Civil War pneumonia was more prevalent and more fatal among Southern than among Northern troops. Among the former this disease annually affected 103 men out of every 1,000, while the corresponding rate for Federal white troops was 34, and the cases reported as acute bronchitis and catarrh numbered 415 per 1,000 among Southern troops as against 192 in the Union ranks. The death rate from pneumonia in certain divisions of the Confederate Army was 20.6 per 1,000, while in divisions of the Union Army, it was 7.8 per 1,000.

Measles prevailed in the Confederate Army, especially in new regiments, so greatly that it interfered with their organization. It so diminished the effectiveness of the troops and became so fatal in some camps that companies, battalions, and even whole regiments had to be disbanded for a time and the men sent home.

B. SPECIFIC CAUSES OF DEATH AMONG THE TROOPS.

As has already been indicated the diseases responsible for the great number of deaths in the Army during the winter of 1917 and 1918 are those generally known as the acute respiratory diseases. They are thus designated because they are transmitted from the respiratory organs of one man to the corresponding organs of another. While pneumonia, either primary or secondary to measles, and meningitis have exacted the greatest toll of life, they have not been the most potent factors in incapacitating troops, and in this respect they have been greatly surpassed by measles. The causes for admission to hospital or to quarters are stated in Table 148.

Table No. 148.—*Percentage relations of causes for admission to sick report in United States Army, within United States limits, based on period from Sept. 29, 1917, to Mar. 29, 1918 (weekly telegraphic report).*

	Per cent.		Per cent.
Causes other than disease	4.8	Malaria	0.018
Measles	7.3	Typhoid and paratyphoid	.019
Venereal	5.8	Diseases other than the above	75.5
Pneumonia	1.8		
Scarlet fever	.42	Total diseases	95.2
Meningitis	.21		

A. MEASLES.

This disease prevailed in epidemic form in all but three camps. These were Hancock, Wadsworth, and Upton, and were occupied almost solely by soldiers from Philadelphia, and New York. Measles appeared within a few weeks after the opening of the camps in September and persisted throughout the greater part of the winter. Camps Pike, Bowie, Wheeler, Sevier, Beauregard, and Jackson suffered most severely with this disease. At Beauregard the annual morbidity rate per 1,000 reached 2,700 during one week. A study of measles according to the nativity of the soldier shows that the United States may be divided into the following groups so far as susceptibility to this disease as displayed among soldiers is concerned. The first group, showing the greatest susceptibility to this disease, includes the following States: Texas, Florida, Alabama, Mississippi, Arkansas, and Tennessee. Although there are no records, Oklahoma probably comes in this group. Group No. 2 includes Louisiana, Georgia, and Kentucky. Group No. 3, includes North and South Carolina, Indiana, Missouri, Iowa, Wisconsin, Nebraska, and Kansas. Group No. 4 includes the rest of the United States.

Measles was present to an excessive degree in the same camps that experienced the most trouble from pneumonia. Southern troops suffered more severely from this disease. The mortality from uncomplicated measles is a minor factor when compared to that from pneumonia, either primary or secondary to measles.

B. PNEUMONIA.

Pneumonia, primary or secondary to measles, has caused more deaths than any other disease. It occurred in epidemic form in many camps, especially in those occupied by southern troops. The highest pneumonia morbidity rates were at Camps Bowie and Wheeler. The highest mortality rate from this disease was at Camp Pike.

Clinically, pneumonia has been reported as lobar and broncho. It is not easy in all cases to differentiate these forms. However, accepting the diagnosis numbers as reported, lobar pneumonia was the more prevalent in most camps. In some camps it is reported that the dominant form of pneumonia changed with the arrival of new troops. Most of the camps, not all, report that broncho pneumonia has been more fatal. At Camp Pike the case mortality is reported at 57 per cent in broncho and 35 per cent in lobar. At Camp Cody the cases showed slightly higher rate in the lobar form. It is generally agreed that broncho-pneumonia is more frequently a secondary infection.

A more important matter is the prevalence of a pneumonia in which the streptococcus hemolyticus appears as the causative agent. This organism is reported as causing both lobar and broncho pneumonia, and the pneumonia caused by it appears to be more frequently complicated with empyema and more fatal than that due to the pneumococcus.

In order to prevent the spread of pneumonia, as well as other communicable diseases, each patient in hospital has been inclosed in a cubicle formed by hanging sheets on frames between the beds. In addition to this all patients carried to hospitals, and while out of cubicle in hospitals, wear masks consisting of three or four thicknesses of gauze. These measures have undoubtedly been of value and should be continued hereafter. In fact there is no reason why shelter tents should not be used for the formation of cubicles in barracks.

C. MENINGITIS.

This disease has appeared in every camp during the six winter months of 1917–18. However, it has been epidemic only in three camps, Jackson, Beauregard, and Funston. Indeed, it has been epidemic only in those camps where soldiers have been drawn from areas in which this disease has been endemic.

Meningitis, next to pneumonia, primary or secondary to measles, has been the most serious disease that the Medical Corps of the Army has had to contend with. It is serious by reason of its high fatality, and also because this of all diseases shows the greatest excess over its prevalence in civilian communities. It is estimated that meningitis has been more prevalent among the soldiers than it has been in any part of the United States during the same period, and taking the average in the Army and the average in the civilian communities, meningitis has been 45 times as prevalent in the Army as in civilian life. This disease is widely scattered over our country, and the draft acts as a dragnet, bringing those who have been exposed and those who are carriers to our camps where they come in contact with highly susceptible individuals, thus spreading the disease. It is unfortunate that drafted men from localities in which meningitis is known to exist can not be kept at home until shown to be free from infection.

D. SCARLET FEVER.

This disease has been most manifest at Camps Pike, Lewis, Kearney, Sherman, Dodge, and Grant. However, its great prevalence at Camp Pike stands out distinctly. The rate at this camp is nearly twice that of the second camp. Scarlet fever was more prevalent in the National Army than in the National Guard camps. It seems probable that this fact is attributable to the presence of the disease in the particular localities from which troops have been drawn. This accounts for the disease in both Camp Kearney and Camp Lewis, which receives men from the same general localities. The greater prevalence of scarlet fever in the National Army as compared with the National Guard may be explained by the later assembly of the National Army and by the continual additions to these camps from civilian life.

E. DIPHTHERIA.

This disease occurred in only 7 out of 29 camps. Here, again, Camp Pike, which has a bad reputation in many things, leads the list. Camps Funston, Dodge, Cody, and Custer come next in order. On account of the specific treatment, diphtheria has not caused a large number of deaths.

16. DIVISION OF MEDICAL RECORDS.

Attached to the Sanitary Division for administrative purposes is also the Division of Medical Records. This division, as its name implies, handles all the medical records of enlisted men and officers serving either in this country or abroad. As was to be expected, it has been expanded very greatly during the present year. All the medical records are filed as promptly as possible, so that all inquiries for information coming through the authorized channels may be answered with as little delay as possible.

After the Civil War there was a great deal of confusion and delay in settling claims, for the medical records were imperfect and it was difficult to obtain information from them. Untold millions of dollars will be involved in the settlement of the various claims that will be made against the Government, all of which must be settled by the evidence from these records.

This office receives also the daily reports of hospitals from "over there." This daily report is a recent innovation. They are arranged as soon as received, so that fairly prompt information can be furnished to all relatives and friends regarding the character of wounds or causes of the deaths in the American Expeditionary Force.

The daily cablegrams of casualties are also carded and from these are prepared weekly statements for the Chief of Staff. It is from these statements that the current information relative to all casualties is furnished to the Secretary of War and other officials.

During the past few months it was found necessary on account of the greatly enlarged Army to change the entire system of tabulating statistics in this division. The old method of tabulating by hand has now been replaced by a modern system of perforated cards, which are sorted and tabulated by electric machines. It will thus be possible to publish from year to year the health statistics of the Army in the annual report.

The work has been so arranged that after the war is concluded the work of preparing the statistics for the "Medical and Surgical History of the War" will be a continuation of the work that is being carried on for the preparation of the statistical tables for the Surgeon General's report. Thus it will be possible to complete the statistical work for the "Medical and Surgical History of the War" within a comparatively short time, instead of after a number of years as was the case after the Civil War. Few publications have been of greater value to the medical profession in this country and abroad than the "Medical and Surgical History of the War." It is especially desirable that the valuable medical and surgical material of this war should be available for the use of the entire medical profession as soon as practicable.

17. GENERAL REMARKS ON SANITATION BY DEPARTMENT SURGEONS.

(Extracts from reports.)

A. SOUTHEASTERN DEPARTMENT.

During the period May 1 to July 20 the nine National Guard divisional camps and the three National Army cantonments within the geographical limits of this department were subject to the authority of the department commander. General Orders No. 96, War Department, July 20, divorced these camps from departmental authority in all matters save supply. This condition continued until General Orders No. 96 were modified on October 15, at which time the divisional camps and cantonments were made entirely independent of these headquarters.

On May 1 the department surgeon's office made contact with sanitary detachments, Regular and National Guards, throughout the entire department, and a schedule of intensive instruction for sanitary troops was prepared and issued. Tentative selection of main and subsidiary medical supply depots and a department laboratory was made. Correspondence was entered into with the Surgeon General's Office over the proposed location of camps and cantonments, and the form and number of medical establishments to be constructed therein. Numerous Red Cross companies and base hospitals were organized and enlisted in the Medical Enlisted Reserve Corps to await the pleasure of the War Department for assignment.

B. EASTERN DEPARTMENT.

The surgeon reports that since the declaration of war the hospital has performed many functions not required in peace times. Over 2,000 candidates for training camps were examined. From 1,000 to 2,000 protective inoculations have been given monthly. For two months an overseas casual camp was administered. Men of special qualifications were furnished units and promptly replaced by searching out recruits from New York or by training men already in the detachment. The hospital acted as a clearing office for the militia and casual offices. It was an unofficial consultant and advisor for medical men, organizations, and civilians on all sorts of topics. The surgeon was called upon for lectures to college students, special courses in military hygiene to senior classes of medical schools, medical societies, and an association of medical reserve officers. In addition, militia organizations were examined for muster in, and work was continued in the office on many occasions until after midnight. On the whole, officers and men worked loyally and uncomplainingly and exhibited the proper spirit and morale under the trying and unusual conditions imposed.

Allentown, Pa., United States Army Ambulance Service.—This camp is under the direction of Col. Elbert E. Persons, Army Ambulance Service. It began on June 1, 1917. The average number of men in the command was approximately 3,200.

The commanding officer reports that so far as known this is the only camp in the United States in which the men are not messed by organizations. On account of local conditions a general mess was adopted at this camp on July 1, 1917. There has been no sickness of a considerable number of men at one time, which may be attributed to improper food or insanitary preparation of food. The men have been well fed and the mess saved and declared a dividend from the company fund aggregating $10 per capita for the period covered. The health of the command has been excellent.

C. WESTERN DEPARTMENT.

The hasty and superficial examinations given by inexperienced and indifferent medical examiners to applicants for enlistment, immediately following the declaration of war, is reflected in the enormous increase in discharges for disability existing prior to enlistment. These do not include the large number of men of National Guard regiments who were discharged for disabilities detected by the medical examiners at the time of muster of their organizations into Federal service. Under War Department instructions mustering officers were authorized to discharge, without prior reference to these headquarters, cases of physical disability detected by them at muster-in examinations. The number so discharged indicated that recruits enlisted in the State National Guard regiments were not required to come up to the standard exacted for the Regular service. As a result many National Guard organizations had an actual effectiveness of only about 75 per cent of their paper strength. During the past three months boards, consisting of specialists in tuberculosis and cardiovascular diseases, have been sent to the majority of posts in the department for the examination of troops for these diseases. These boards are still engaged on this duty and the result of their work already accomplished has been submitted to the Surgeon General of the Army in the shape of a report from each post examined. The prompt elimination of these physical defectives, and particularly the tubercular subjects, will doubtless result in the saving to the Government of millions for pensions and for days lost in hospital, had these defective soldiers not been promptly discovered and eliminated. At the outset it appeared to be the intention of the War Department to examine only those troops at stations known as "organization camps." Shortly after my arrival at these headquarters, however, I became convinced that these examinations should not be limited to the several large stations, but should be general throughout the entire department, as the majority of the troops were men who had enlisted subsequent to the declaration of war, and had received a most hasty and superficial examination. The result obtained has confirmed my opinion, and the comparatively small expense for mileage is more than offset by the assurance that the men in organizations have been given a thorough physical examination and found qualified for actual field service, without the liability of breakdown. During the calendar year there were 1,399 discharges for disability, of which 195 were in line of duty and 1,204 not in line of duty.

The United States becomes responsible for the medical attendance and supplies of the National Guard organizations from the date on which they report at their company rendezvous. No sooner had these organizations so reported than there appeared to develop a mania for purchase of drugs, hire of civilian physicians, and treatment of officers and soldiers in civilian hospitals. To a certain extent this procedure was necessary and permissible under paragraph 1476, Army Regulations, particularly for those organizations guarding tunnels, bridges, and public utilities, frequently scattered in small detachments. The idea seemed to prevail among the National Guard officers, medical and line, that as the United States was responsible for the bills there need be no limit to the expenditures.

Accounts were sent to this office which indicated that an earnest effort had been made to purchase at least one item of the varied stock of drug stores, or to place men of every organization in some civilian hospital, or under the care of a civilian physician. Needless to say, not only these but all accounts have been closely scrutinized and nothing left undone to safeguard the interests of the Government. In spite o numerous letters on the subject, settlement of these accounts has been considerably delayed and has caused an almost interminable correspondence by reason of the failure of the officers responsible for the purchase or service to render vouchers immediately on the conclusion of such purchase or service. The accounts, even when rendered, are habitually in such form as to render it necessary for this office to prepare the voucher for signature of the creditor and certificate of the officer responsible, the latter by that time being in France or at some eastern embarkation point.

D. CENTRAL DEPARTMENT.

The mean strength of command for the year, as reported on returns of the Medical Department, was 19,899.67. The total admissions to sick report from disease and injury numbered 14,567, with a ratio of 732.022 per 1,000. A total of 131,723 days were lost by sickness, making a daily noneffective from all causes of 18.135 per 1,000.

On May 8, when the first officers' training camp was to be opened at Fort Snelling, Minn., the Medical Department personnel consisted of two officers, Medical Corps, one lieutenant, Medical Reserve Corps, one master hospital sergeant, eight privates and privates, first class, Medical Department, a shell of a hospital, with buildings, in only fair condition.

A partial regiment of National Guard was camped on the reservation at Fort Snelling. On May 15 enough candidates had been examined physically to start in training 2,500 students of the officers' training school. A hospital had been put into running capacity, requisitions submitted for 300 beds, barrack, kitchen, and administrative features prepared for a recruit company of 200 hospital department men, and sanitary management completed for a command of a training camp and four regiments of Infantry and a regiment of Artillery.

One of the first and most successful acquisitions to effective work in meeting the emergency of sudden expansion with only new and untrained men to work with, was 16 trained nurses (female) under a head nurse, Miss Sophia Burns, of the Army Nurse Corps.

New medical men direct from civil practice found their places as best they could under Army conditions strange to them, and soon came to appreciate the advantages to be derived from a practical course of schooling. This was instituted in accordance with circular letter, Surgeon General's Office, dated May 14, 1917, and was carried through in every detail with great credit to all concerned.

Considering the frequent changes in both the commissioned and enlisted medical personnel, the fact that this personnel was largely composed of men new to the service and the vast amount of work thrust upon them, their services have been most gratifying. This degree of efficiency has been due to the schedule of intensive training prescribed by the Surgeon General May 14, 1917, which has been carried out in this department, to the similar schedule of instructions in force in the medical officers' training camps, and the intellectual caliber of the men entering this branch of the service.

E. SOUTHERN DEPARTMENT.

In considering the operations of the Medical Department of the Southern Department for the calendar year 1917, the special condition that pertained during the year will first be briefly enumerated in order that a proper understanding of the situation be called to mind.

During 1916 practically the entire available military force of the United States, including the militia of practically all the States, had been mobilized in this department in connection with the Mexican border troubles. These forces, numbering altogether 160,000 men in December, 1916, were gradually moved out of the department, the main homeward-bound movement of the militia beginning January 2, 1917. At the end of the month there were 50,000 Regular troops and 70,000 State troops of the States comprising the department. The Regular troops in this department maintained a fairly constant strength throughout the year, the average being 57,408. On April 5, 1917, just prior to the declaration of war, the State troops were again called into the Federal service and at the end of April these troops in the Southern Department numbered 5,740. This was about the average number for the remainder of the time during which the militia was under department control with the exception of the month of August, when the number increased to 17,664. This increase is explained by the fact that the State troops were assembling in Southern Department territory for the National Guard divisional camps which opened during September and October, after which time the militia passed out of the department control by the organization of divisions. There are five National Guard divisional training camps within the territory comprising the Southern Department.

As previously stated, the strength of command in the Southern Department for the year 1917 has fluctuated widely, from a maximum of 119,178, January 31, 1917, to a minimum of 51,096, March 31, 1917; again reaching a high figure of 85,242, August 31, 1917. These figures include both Regular Army and National Guard officers and enlisted men.

For the Regular Army troops, the number in the department averaged 57,408 officers and enlisted men, the figures ranging from 48,492 in May to 67,578 in August. These figures omit the large number of men of the aviation section, Signal Corps, in training at Kelly Field. Since October 5, when the number of men at this station was 11,000 and had in December increased to approximately 32,000, reports of sick and wounded from this station have not been forwarded through this department. Attention is called to this for the reason that a large part of the work at Base Hospital No. 1, Fort Sam Houston, Tex., is received from this aviation station. At Kelly Field itself, there is only a small camp hospital, not equipped for handling serious cases.

Again, during the latter part of the year a considerable number of cases, about 2,200, were treated at Base Hospital No. 1, Fort Sam Houston, belonging to the National Army cantonment at Camp Travis. This was due to the fact that the base hospital at that camp was not ready for two months after the camp itself was put into service. These cases were reported direct to Camp Travis for transmission to the Surgeon General and do not appear on the weekly reports of this department, but during October, November, and December they occasioned a very material part of the work of that hospital. Figures are not available to show the number of men in this territory contributing to Base Hospital No. 1, but besides the department proper there is, as above mentioned, Kelly Field, Camp Travis, and the officers' training camp at Leon Springs, Tex., which at times numbered 4,000 men.

F. FORT OGLETHORPE, GA.

The middle of May marked the beginning of the expansion of military activities in Chickamauga Park, Ga., the personnel of troops representing about two-thirds recruits and one-third seasoned soldiers. Until the advent of cold weather, clothing was sufficient, but since then a lack of sufficient woolen clothing was felt. This condition has now been remedied except for the pressing need for heavy woolen blouses and breeches.

In the formative period of the camp, tents served as shelter until rough, unceiled, wooden one-story buildings were constructed. As cold weather approached, these buildings were double floored, side walls were ceiled inside and a layer of beaver board made to form a ceiling overhead and an adequate number of stoves installed. An insufficient supply of coal has made the use of wood necessary for heating purposes, which latter for the most part has been green and of poor quality.

The health of the experienced soldiers has been very good. As might have been expected among so many recruits from rural districts, measles, mumps, pneumonia, a few cases of scarlet fever, and diphtheria appeared. Fourteen cases of cerebrospinal meningitis occurred, with 3 deaths. The outbreak of mumps reached its highest point about the middle of December, when 420 cases were under treatment.

18. GENERAL MEDICAL SERVICE BY DEPARTMENT SURGEONS.

A. SOUTHERN DEPARTMENT.

In the case of the Regular Army the incidence of disease for the first three months of 1917 averaged between 22 and 30 per week per 1,000. During April and May this figure increased to about 40 per 1,000, owing to the numerous enlistments, but since the middle of June, when the weekly rate was 36 per 1,000, the rate has gradually decreased till the end of the year, when rates of 15 to 18 per 1,000 have been maintained. These favorable rates, however, unfortunately have not continued into the present year, owing to the epidemics of measles, pneumonia, etc.

With a total strength of command fluctuating widely from week to week, and month to month, as has been the case with the National Guard troops in this department, it is difficult if not impossible to determine reliable morbidity rates. However, there seems to be a tendency to a rate which is slightly higher than in the regular forces.

Including measles with the respiratory disease and taking the total of such diseases with influenza, pneumonia, and tonsillitis, we have a group of diseases which comprises one-third of all the admissions on sick report of the Regular Army and National Army for the year and over one-half of similar cases of the militia.

B. CENTRAL DEPARTMENT.

Tuberculosis cases were very prevalent, there being 71 cases at Fort Benjamin Harrison, Ind.; 44 cases at Fort Riley, Kans.; 43 cases at Fort Des Moines, Iowa; 24 cases at Fort Sheridan, Ill.; 13 cases at Fort Crook, Nebr.; 11 cases at Fort Snelling, Minn.; 10 cases at Fort Leavenworth, Kans.; 3 cases at Fort Brady, Mich.; and 1 case at Fort Wayne, Mich.

Fort Benjamin Harrison, Ind.—The amount of sickness has been unusually small and the mortality extremely low. There has been remarkable immunity from diarrhea, dysentery, gastrointestinal and other diseases of the digestive organs. This condition is evidently due to excellent quality of food and extremely favorable sanitary condition of post. Military control of restaurants, lunch stands, etc., contiguous to post has contributed greatly to this result. There were a few cases of smallpox (mild type) during the early part of the year, but these cases occurred only among those who were recently enlisted and before a successful vaccination could be effected. There have been only a few cases of cerebrospinal meningitis. Sporadic cases of diphtheria have occurred, but they were promptly brought under control by locating the carriers and immediately isolating and immunizing them with antitoxin. A mild epidemic of measles has prevailed with practical elimination of pneumonia as a complication. A mild epidemic of scarlet fever at one time threatened the Tenth Infantry by infection of 10 or 12 men. Prompt isolation of Company B and the maintaining of a most successful quarantine promptly brought the threatened epidemic to an end.

Fort Leavenworth, Kans.—There were several outbreaks of infectious diseases but the active cases have been effectively isolated and the threatened epidemic killed in the shell. The civil population of the post has been singularly free from diseases, no case worthy of note being on record. The inundation of transient units and individuals comprising the training camps for officers and provisional officers and recruits for depot companies contributed largely to the percentage of sick and to the variety of diseases.

Measles and mumps have existed continuously since July and are at present on the decline. Meningitis, diphtheria, and scarlet fever existed sporadically, a few cases being constantly present, and nearly all contracted before arrival at post. A few cases of smallpox in nonvaccinated cases, contracted from outside sources and prior to arrival in post, developed; also one case of typhoid fever that had received first dose only toward immunization prior to attack.

Fort Snelling, Minn.—There has not been a single failure in enteroenterostomies, herniotomies, appendectomies, gall bladder and kidney operations, bladder and genito-urinary work, bone and joint surgery, head and mouth work, and in plastic surgery. There have been 233 operations performed since June 16, 1917. The department of nose, ear, and throat and that of internist have a record of 31 pneumonias and only 1 death; 4 meningitis cases and but 1 death, due in this case to other causes.

The various organizations, aggregating 17,000 men, have been examined exhaustively for psychoneuroses and tuberculosis, and the hospital at this station has attended to the sick and to the military medical training of the troops in Wisconsin, North Dakota, and Iowa, with an average constant sick of about 132. The prevailing diseases have been for the summer months; mild gastrointestinal disorders, with occasional ptomaine attacks which were attributed largely to ice cream, hence this commodity was cut out entirely and not allowed to be brought upon the post, with certainly a marked diminution of autointoxication ailments. Venereal diseases steadily increased, but were held in check to a moderate extent by an effort only partially effective in enforcing the usual methods of prophylaxis and the provisions of general order 17, 1912.

With the advance of cold weather pulmonary affections, mumps, and measles appeared more and more frequently on the sick report, with occasional diphtheria and meningitis cases. To control these diseases more effectually effort was made to pick out carriers from the companies and isolate them within the barracks. When the epidemic of mumps, measles, and pneumonia assumed alarming proportions, the barracks being badly overcrowded, a vigorous effort was made, with the hearty cooperation of the commanding officer, to have the company officers daily pick out, and call out, all men showing or complaining of any symptoms of colds or other affections, remove them from among the well men and segregate them in one part of the barracks. These so isolated were then removed, the ones who recovered (this without hospital treatment), with the result that soon all new cases originated in these separated sections only, and there was a rapid reduction of all these affections and the complete eradication of measles and pneumonia from the troops' barracks.

From this time on sporadic cases of mumps only have occurred. With this diminution of increment to the sick report the cases received were held in the hospital beyond the time that their condition would seem to require, in order to further reduce the chance of infection. As a consequence marked temporary rise in noneffective rate to almost 60 per 1,000 in December ensued. Prior to this the noneffective rate had never exceeded 11 or 12 per 1,000, the rate for the year reaching 15 plus. To prevent mouth-to-mouth infection every bed in the barracks had its mosquito-bar rods in place, and from the left side of these rods each man suspended his shelter half so that it hung along the side of his bed. Thus was there placed between each sleeping man a suspended screen to act as a mechanical barrier to droplet infections. This has not been in effect long enough to demonstrate results. In the hospital suspended sheets replaced the shelter halves of the barracks.

C. EASTERN DEPARTMENT.

Fort Jay, N. Y.—During the fall of 1917 an epidemic of measles occurred at this post. The admission rate during the period was 337.28 per 1,000 per year. There has been a marked decrease of venereal diseases for the past year. Most of these cases were contracted prior to arrival at the post.

Madison Barracks, N. Y.—The surgeon reported that during September, October, and November there were 123 cases of measles, 75 mumps, and 11 diphtheria at the post, and that it is probable that the crowded conditions of the barracks had much to do with the extension of the epidemics of measles and mumps. He reports one case of spinal meningitis occurring on September 29, the patient dying within 24 hours.

Fort Monroe, Va.—The surgeon reports 19 cases of pneumonia at the post during the year, one being acute lobar pneumonia and 5 acute pneumonic tuberculosis in negroes. There were 3 deaths and 1 case of permanent blindness from wood-alcohol poisoning.

Plattsburg Barracks, N. Y.—The surgeon reports no epidemic disease occurring during the year with the exception of acute epidemic conjunctivitis (pink eye), caused by the Koch-Weeks bacillus. A very large number of cases of this disease occurred during the first officers' training camp, which was ascribed to the use of the common washbasin. On the discontinuation of the use of the common basin for washing the epidemic gradually disappeared.

One case of acute anterior poliomyelitis was also reported as occurring in October during the second officers' training camp, in a candidate 25 years of age who had been exposed to severe weather conditions by being in the trenches all night. He was evidently a carrier of the disease, and owing to exposure his resistance to development of the disease was lowered. He had not been away from his station and the disease was nonexistent in this locality.

Allentown, Pa., United States Army Ambulance Service.—The commanding officer, United States Army Ambulance Service, reports that the work of the camp hospital was conducted in tents through the months of June, July, August, September, and October, and the more serious operative cases were treated at the Allentown Hospital. This hospital is reported to have a splendid management, excellent facilities and plumbing, and on account of its proximity to the camp has rendered very valuable service.

During November and December sick call, dispensary, surgical dressings, and infirmary have occupied temporary quarters in the basement of the Allentown Hospital, while premanent infirmary building was being erected. The sick rate of the camp has been comparatively low, namely 17.52 per 1,000 of strength constantl noneffective.

19. SANITATION, BY DEPARTMENTAL SURGEONS.

A. SOUTHEASTERN DEPARTMENT.

During the period May 1 to June 30 no morbidity of moment arose, the main movement of sick being malaria, arising from detachments guarding public utilities, du to inadequate housing facilities. To relieve this condition, due to lack of screening quining prophylaxis was directed and carried out, with marked result.

The following activities were of note: Inspection of proposed camp sites Savannah Ga., and Charlotte, N. C., and recommendation for rejection of the first and acceptanc of the second. Publication and issue of General Sanitary Code to all troops within th department. The selection of a large main medical supply depot at Atlanta, Ga Due to an epidemic of typhoid in the States of North Carolina and Tennessee intensiv inoculation of all National Guard troops in those States. Upon muster into Federa service of National Guard organizations immediate preparation for their sanitar supplies and organizations of detachments and units in conformity with existin tables of organization. Organization and supply of new Regular regiments in thi department. Plans were entered into with the Surgeon General's Office and wit the authority of the department commander for the use of the post hospitals, certai barracks and buildings of the posts of Forts McPherson, Oglethorpe, and Logan I Roots, as a nucleus for a base hospital at each of these points.

In compliance with General Orders 96, War Department, divisional medical suppl officers were assigned by the Surgeon General to each of the 12 divisional camps, an without requisition a complete base hospital and initial medical equipment for a troops, for three months in advance, ordered issued and sent by express. Sanitar inspectors were assigned to each camp during the period of construction, with orde to make a complete survey of the camp site and maneuver terrain and eradicate a unsanitary conditions. With the exception of the cantonment at Camp Pike and Camp Jackson, little of moment was found requiring attention from a sanitary standpoint.

The large number of workmen gathered at the camps and cantonments from all sections of the country would naturally have given rise to typhoid and smallpox, and to obviate these dangers the sanitary inspectors at such points were ordered to complete vaccination of all men. The results have fully met expectations.

On May 14 a circular was issued directing the administration of oil of chenopodium for the eradication of hookworm, the procedure suggested being the administration of one 5-minim globule at 7 a. m. on a fasting stomach, a second at 10 a. m., and a purgative of Epsom salts or castor oil at noon.

B. SOUTHERN DEPARTMENT.

Fort Sam Houston, Tex.—Sanitary inspections of camps was maintained throughout the year and in general conditions have been satisfactory.

C. CENTRAL DEPARTMENT.

With the calling into the Federal service of the National Guard and organization of officers' training camps it became necessary to expand many of the military posts in this department to several times their normal capacity and to lay out many new camp sites. In connection with these expansions the question of water supply, disposal of sewage, garbage, bathing facilities, etc., all had to be solved, while at the same time the task of conducting the physical examination of all troops entering the Federal service and their immunization against small pox and typhoid fever were thrust upon the medical personnel.

Fort Benjamin Harrison, Ind.—The sanitary conditions have at all times been excellent. This is no doubt due to the efficient administration of the medical officers in charge of the medical officers' training camp, the sanitation of the post being in charge of selected officers for this work for the period of about three months. Their work has been thoroughly efficient and it has been the endeavor to maintain a high standard of sanitation. Unsanitary conditions resulting from overcrowding in quarters, personal uncleanliness from neglect of bathing, improperly cooked food, etc., have been promptly corrected through action taken on reports of inspection. In the summer, examination of various swimming pools, proper analyses of water, noting the quantity, quality, drainage, and source of supply, number of bathers, care of pools, etc., and report of conditions in general were made to the post commander. This precaution evidently prevented many diseases and especially those of microbic origin, affecting the eyes and ears. General sanitation of post excellent, disposal of sewage, stable manure, kitchen garbage, etc., ample. The installation of septic tanks, and provisions for an adequate water and milk supply have been noted in previous sanitary reports.

D. EASTERN DEPARTMENT.

Fort Hamilton, N. Y.—An active campaign was carried on at this post during the year against the breeding of flies.

Fort Totten, N. Y.—Measures taken to decrease the number of mosquitoes have only been partially successful. This post is situated on a point jutting into Little Neck Bay on Long Island Sound, an area of about 30 acres being between it and the mainland. This area is salt marsh and stagnant water and always has been a source of trouble with regard to the breeding of mosquitoes. Drainage seems to be impossible.

A new system of sewerage and sewage disposal is about completed. The plumbing throughout the post is old and frequent repairs are necessary. The guardhouse is inadequate under present conditions and recommendations have been made to enlarge it. The incinerator used for the disposal of waste is old, out of date in design, and practically unserviceable. The surgeon has recommended that a new incinerator be installed.

20. HOUSING AND VENTILATION, BY DEPARTMENTAL SURGEONS.

A. EASTERN DEPARTMENT.

Camp American University, Washington, D. C.—The camp commander reports that there are 400 more men in the camp than the maximum allowance for the space available. He stated that the Chief of Engineers was requested to make further efforts to get money for building an engineer cantonment, that such efforts were being continually made, but so far without success. However, the number of troops in this camp varies on account of the departure of troops for overseas.

Fort Hamilton, N. Y.—Lack of suitable accommodations for the National Guard troops which arrived in August was a troublesome factor which has been remedied by the construction of cantonments for mess halls.

Camp A. L. Mills, N. Y.—The commanding general, Forty-first Division reported that eight men were sleeping in each pyramidal tent, which did not permit of 500 cubic feet of air space for each man, nor of the separation of 5 feet between the heads of occupants of bunks, and that orders had been put in effect that the top of half the door space of tents be open all the time except during rainfall.

Fort Terry, N. Y.—Overcrowding in barracks is reported. In December, with the formation of the batteries here for overseas duty, and the influx of draft men sent to fill up these batteries, the barracks originally built for 109 men were crowded to hold 235 men forming these batteries. The cantonments ordered to be erected at this post were started in December. When these are completed it will relieve the overcrowding.

Fort Washington, Md.—The surgeon reports that owing to the number of recruits and drafted men received at the post, there are not sufficient barracks to house them properly it having been necessary to use the gymnasium as sleeping quarters for the troops. He recommends that additional cantonments be built at once. The commanding officer, Coast Defenses of the Potomac, has been directed to take the necessary steps to secure adequate sleeping accommodations for the troops at Fort Washington.

Fort Wood, N. Y.—The present barracks are reported to be greatly overcrowded, men sleeping in the schoolroom, gymnasium, and basement of the barracks. The construction of cantonments to accommodate 500 men had been recommended and the Quartermaster General has recently had a representative of his office at Fort Wood to investigate and report on the matter.

B. SOUTHERN DEPARTMENT.

Fort Sam Houston, Tex.—Tents are gradually being replaced by barracks or tent frames erected with board sides. These are warmer for winter use than barracks unless the frame structure of such barracks is covered with some sort of sheathing material. In this case the question of ventilation of both requires the same attention. Without such sheathing the problem of heating barracks is extremely difficult, and the quantity of fuel required is excessive and does not accomplish its purposes. Patients in hospitals so constructed, who could otherwise be up and around, must stay in bed to keep warm.

In some of the border stations. adobe houses have been constructed by the men and make most comfortable quarters for the climate where dust storms are a frequent cause of great annoyance.

Where tents are in use for quarters, overcrowding and lack of ventilation are the most constant cause of trouble. The importance of this danger is now especially emphasized by recent investigation into the etiology of the respiratory diseases, including, in this group, measles and tonsillitis. Frame barracks except for overcrowding are not in most cases such great offenders in this regard, as the cracks between the boards allow almost too free ventilation in windy weather, but with tents the tendency to close all ventilating openings is ever present and required constant watchfulness on the part of the sanitary officers.

In November orders were issued restricting the number of men in barracks and tents so that not less than 500 cubic feet of air space and 40 square feet of floor space was provided for each man with at least 5 feet between bunks. Later instructions were issued to alternate the heads and feet of men as they slept, so that an even greater distance separated their heads and less danger of "droplet" infection existed.

C. FORT M'PHERSON, GA.

Remarks of post surgeon, Fort McPherson, Ga.:

When the plans for the cantonment barracks were first received at this post, I carefully examined them and informed the commanding officer that the allowance of cubic air space was entirely too small, and recommended that before the buildings were put up he communicate my objections to the War Department. The commanding officer did not approve of this recommendation, on the ground that the plans were sent from Washington and that he had no other recourse but to put the building up. I informed him that I would make a sanitary report immediately when they were occupied.

On opening up the training camp (reserve officers of the line) and before many of the candidates had arrived I made a thorough inspection of these buildings and their contents, and made the following special report to the commanding officer:

* * * "The examination of the first two or three barracks now occupied by applicants for the officers' training camp shows a very unsanitary condition of affairs. Without exception, all beds are touching each other. Aside from the lack of initial air space, such a condition of affairs, in which this close and intimate association of large bodies of men occur, can not but end disastrously in an epidemic of various infectious diseases, if our experience in the past is of any value. I recommend that sufficient additional barracks be built at once, in such quantity as to permit at least the space of a bunk between each occupied bunk. This, it seems to me, on sanitary grounds, should be the minimum of floor space."

The department surgeon was able to obtain from the department commander additional buildings, and in the meantime all candidates over and above one for every 600 cubic feet were put in tents. The wisdom of this was manifested in the fact that the training camp at Fort McPherson was exceptionally free from contagious diseases, nothing more than a few cases of conjunctivitis having occurred.

The sewage disposal plant was much overworked when the training camp was in full swing, resulting in foulness. Although recommendations for the abatement of the nuisance were made, the matter was not taken up until after the arrival of a special sanitary inspector from the Surgeon General's Office in August. An allotment has now been made which it is believed will correct all deficiencies.

United States Hospital No. 6 is excellently equipped.

D. SOUTHEASTERN DEPARTMENT.

On September 13 recommendation was made to the Surgeon General for the installation of the Sayville water heater, or equivalent, for camps and cantonments, reminding the Surgeon General that by the middle of October the change of temperature would be such that southern troops would refrain from using cold-water showers, and that to insure physical comfort and cleanliness of these troops, the necessity for installation of such water heaters was essential, at the rate of one to each thousand men. Paragraph 4 of that recommendation stated that "this recommendation is made at this time in view of the difficulty the Quartermaster's Department has encountered in securing plumbing facilities, and as each of these heaters can be made in the course of a day by local talent, by the use of one 30-gallon boiler and several strings of pipe and knuckles, it would appear more satisfactory to have camp quartermasters procure the necessary articles and construct one for each 1,000 men, so that they will be available when the demand arises, and a long wait will not have to be made on the pleasure of congested railways."

The following letter to The Adjutant General of the Army, with reference to the advisability of providing tent floors at all National Guard divisional camps, was written by the department surgeon:

"It is recommended that the decision not to provide tent floors for the National Guard divisional camps be reconsidered, and that authority for the purchase of the necessary lumber be granted to constructing quartermasters.

"The labor of constructing tent floors can be performed in part by troops of the advance detachments, and completed when the organizations arrive. The total cost per tent should not exceed $4 to $5, or approximately 50 cents per man, and the saving to equipment and clothing and the certainty of a neat and orderly arrangement within tents would, it is believed, amply justify the expense, even without taking into consideration the comfort and contentment and physical well-being of the troops.

"I wish to invite attention, also, to the evident fact that the saving made on material for tent floors will be more than counterbalanced by the increase in sick rate, with a corresponding reduction in efficiency. As the deficiency in canvas will cause necessary overcrowding, it is thought the part of wisdom to take every precaution to minimize the danger of communicable diseases, and tent floors being susceptible to mechanical cleaning, will go far toward the reduction of such diseases as can be acquired from men in close contact who can not be so disciplined that they will not expectorate on the floor, as they invariably do in unfloored tents.

"In addition to the above reasons, the possession of a tent floor in a camp invariably adds to pride in appearance, and it is an indisputable fact that a soldier may not keep his clothing and equipment in even a reasonably correct condition if he is forced to be housed on bare soil."

21. FOOD, BY DEPARTMENTAL SURGEON OF SOUTHERN DEPARTMENT.

Kitchen and mess management has been under constant inspection and systematic supervision. Faults in sanitary arrangement were corrected as promptly as possible. While not included within the period covered by this report, it may be of interest to note that careful investigation of the physical condition and personal hygiene, including investigation to determine the presence of disease carriers, has been instituted for all cooks and others handling food. Food has been satisfactory in character and sufficient in amount; no complaints as to preparation are reported.

A vigorous campaign against flies has been kept up throughout the year. The short winter of these Southern States allows a long fly-breeding season and, in reality, flies are to be found on occasional warm days even in the coldest season of the year. Thorough screening of all kitchen and mess facilities has been maintained and active methods of extermination with traps, poison, and swatters have been early instituted.

22. WATER SUPPLY, BY DEPARTMENTAL SURGEONS.

A. SOUTHERN DEPARTMENT.

Notwithstanding the severe drought conditions which prevailed throughout this territory, water supply in general gave no great trouble and was sufficient. In no case was epidemic reported attributable to water supply.

At Leon Springs the shortage of water was most acutely felt for the Artillery troops and training camp located there. Special studies of the water situation at this point have been made the subject of a special report. The maximum available supply of 450,000 gallons per 24 hours is not sufficient for the almost 10,000 men at times located there with the accompanying animal equipment of artillery of Cavalry organizations.

B. FORT OGLETHORPE, GA.

Under the heading "Water," the surgeon in charge stated that "through the laboratory much of the early work of sanitation was accomplished. The water supply as delivered to the hospital was found to contain *B. coli.* The supply was investigated and found to be made up of two sources, one the City Water Co. of Chattanooga and the other deep wells on the post. The former supplies about 2,000,000 gallons, the latter 500,000 gallons per day. This is inadequate. Frequently the hospital is without water, which causes great inconvenience and results in insanitary conditions in the toilets, which become clogged, much to the discomfort of the patients. Personal inspection and laboratory studies showed the Chattanooga supply to be Tennessee River water, which is sedimented, sand-filtered, and chlorinated. This was found excellent. The post supply is made up of deep wells averaging 450 feet in depth, and all contain *B. coli.* Contaminated wells were closed where possible and placarded."

23. CLOTHING, BY DEPARTMENTAL SURGEONS.

A. EASTERN DEPARTMENT.

Fort Hamilton, N. Y.—The surgeon reports that the shoes of the men wore out before those sent in for repairs were returned, thus causing a constant lack of proper shoes and subsequent increase of sickness.

B. CENTRAL DEPARTMENT.

The inability to obtain winter clothing, especially the olive-drab woolen clothing, for men has contributed materially to respiratory afflictions. Requisitions have been promptly made and approved for clothing, but the greater part of the Tenth Infantry has not as yet been supplied with heavy clothing.

C. SOUTHERN DEPARTMENT.

Proper clothing was not especially lacking till late in the fall of 1917 and in the early months of 1918, when the winter developed into the most severe for cold weather on record. The lack of warm clothing then became acute and applies to not only woolen uniforms, breeches, and blouses, but also to overcoats and blankets, and it was not surprising that the men crowded together in badly ventilated rooms in order to keep warm when their outer clothing consisted of cotton khaki and their bedding of but two thin blankets.

24. HOSPITALS, BY DEPARTMENTAL SURGEONS.

A. SOUTHEASTERN DEPARTMENT.

Constant reminders were sent to the Surgeon General's Office that the necessary Medical Department construction was not being carried out in compliance with original orders on the subject. To partially offset this delay in preparation for reception of the sick, it was necessary to request the commanding generals of the Northeastern, Eastern and Central Departments to have field hospitals and ambulance companies precede the other troops, to immobilize as temporary hospitals until the delayed medical construction was completed. At the National Army cantonments, where no sanitary unit was scheduled to be assembled, a complete field hospital was shipped.

B. EASTERN DEPARTMENT.

Fort Jay, N. Y.—The surgeon reports that the old hospital building is in a dilapidated state, being an old frame building with unsanitary plumbing, and that it has outlived its usefulness as a hospital. A new heating plant has been installed in the cellar of the building.

Four new buildings, each containing 32 beds, have been almost completed in addition to a mess hall. Buildings are lighted by electricity.

The capacity of the prison ward is for 10 beds. On account of the crowded condition of this ward, it has often been necessary to put convicts in the same wards with enlisted patients, a procedure which is unjust to the latter but which, under the circumstances, could not be avoided.

Fort Hamilton, N. Y.—The surgeon reports that the new hospital building can not be used for hospital purposes because the steam-heating plant is not yet completed. The building is being temporarily heated by the Quartermaster Corps, and is at present being used to house some of the drafted men recently received at the post.

Fort Monroe, Va.—The surgeon, Fort Monroe, Va., reports that the hospital there has acted as a base hospital for the surrounding territory, receiving patients from Camp Stuart and Camp Hill at Newport News, Va., Langley Field, Hampton, Va., Richmond and Norfolk, Va., and quite a number from merchant ships, United States and foreign naval vessels, there being 150 patients in hospital at times. Two new wards are about completed, which will increase the hospital capacity to 220 beds without crowding. New buildings have been asked for to house the increased number of enlisted men, Medical Department, needed for the increased capacity of the hospital.

There are 8 female nurses, Army Nurse Corps, on duty at this post, and the surgeon expects that it will be necessary to increase this number to 14 within the next few months. The erection of a building to house the Army Nurse Corps has been requested.

25. MEASLES, BY DEPARTMENTAL SURGEONS.

A. CENTRAL DEPARTMENT.

There were several epidemics of measles, the larger number of cases being at Fort Riley, Kans., which had 247 cases. There were also 156 cases at Fort Benjamin Harrison, Ind., 121 cases at Fort Omaha, Nebr., 72 cases at Fort Leavenworth, Kans.; 37 cases at Fort Sheridan, Ill.; 35 cases at Fort Des Moines, Iowa; 34 cases at Fort Snelling, Minn.; 14 cases at Fort Wayne, Mich.; 10 cases at Fort Crook, Nebr.; and 3 cases at Fort Brady, Mich.

B. SOUTHERN DEPARTMENT.

These two diseases have continued to be very prevalent throughout the year. Many of the men claim to have had the diseases in childhood. Whether or not our future knowledge will show that different strains of the causative organisms of these diseases exist, as the several types of pneumonia, is of course only a matter of speculation at the present time; it might account for the absence of immunity in well authenticated cases of previous attack. As mentioned later, when discussing the presence of hookworm, another cause of the recurrent cases seems to be the lowering of physical standard by reason of the anemia incident to anchylostomiasis and malaria.

Complications of broncho-pneumonia were especially common following measles. In fact, probably the majority of these cases started in that manner. Not a few of the deaths reported as broncho-pneumonia undoubtedly were due primarily to measles.

26. VENEREAL DISEASES, BY DEPARTMENTAL SURGEONS.

A. CENTRAL DEPARTMENT.

Prophylaxis is promptly observed when required and all stations fully equipped and intelligent enlisted men designated for instruction and record keepers. Much of the success of prevention of venereal diseases is the result of proper "plain talks upon venereal diseases" by medical officers detailed for this purpose. At one time a lecture was given to the Tenth Infantry, the regiment being divided into battalions. Instruction was given to the men upon the dangers of gonorrhea, syphilis, etc., calling attention to the prophylaxis required, the personal danger of contamination, and its results. Attention was especially directed to Army Regulations, and to the Manual for the Medical Department in relation to immoral conduct. The efficient and hearty cooperation of the post commander with city authorities in controlling the vice conditions in the city of Indianapolis and its environment has mitigated in a large measure the spread of venereal diseases.

Venereal diseases figure conspicuously among the causes of admittance to the hospital, but have by no means advanced in volume in proportion to the increase of size of command. Adequate provisions for prophylactic treatment was provided at the beginning of the influx of troops, and the number of treatments taken indicate that a very negligible percentage of the admissions for venereal diseases had failed to avail themselves of prophylactic treatment.

Fort Riley, Kans.—On account of the great influx of new troops in newly formed organizations, it was difficult to carry out such prophylaxis in detail at various times. The number of venereal diseases, however, has been a good deal below normal.

Fort Robinson, Nebr.—A conspicuously small number of venereal cases originated at this post, one syphilis and four gonorrhea. The system of inspection has been efficient in reducing the cases to a minimum.

B. SOUTHERN DEPARTMENT.

Grouping the three venereal diseases together, syphilis, chancroid, and gonorrhea, the Regular Army shows 5,394 cases, or 94 per 1,000, while the militia shows 1,048 cases, or 58 per 1,000, a higher ratio for the militia than a year ago but still markedly below the rate for the Regular Army. That figure, however, shows an improvement over a year ago when the rate was 140 per 1,000. It is believed that many cases of venereal disease are unreported in militia organizations.

27. MALARIA, SOUTHERN DEPARTMENT.

The incidence of malaria shows a decided decrease over the figures of a year ago. The combined rate for Regulars and Militia is 6.8 per 1,000, or exactly 10 less per 1,000 than for the year 1916.

28. PHILIPPINE DEPARTMENT, MANILA, P. I.

(Extracts from department surgeon report.)

The general condition of this department is that of peace, and as a matter of fact it is more peaceful than it ever has been before since American troops were sent to these islands.

Four stations have been abandoned during the year: Regan Barracks, Warwick Barracks, Fort San Pedro, and Ludlow Barracks.

The troops were stationed at 13 posts and one subpost. No new posts were established. Three more posts are scheduled to be abandoned early in 1918.

The food and clothing provided for the troops has been excellent. The water supply generally, although somewhat expensive as far as that for drinking and cooking is concerned, has been excellent in quality and abundant. Distilled water has been furnished for drinking and cooking purposes at many of the stations; others are supplied with artesian water which is of an excellent quality.

A. HOSPITALS.

The department hospital is in a very good state of repair at the present time. It has been repainted during the past year and an excellent X-ray clinic has been provided.

There were 1,807 cases transferred to the department hospital for treatment, namely 1,698 American white, 71 American colored, and 38 Philippine Scouts. An average of 109 patients was in hospital during the year, of which enlisted men and officers were 63 and civilians 46.

The hospital at Fort Mills is a large concrete building, sufficient in size to provide for all the demands made upon it, with the exception of quarters for the enlisted personnel.

The hospital at Fort McKinley is a large concrete structure, which is much larger than is needed for the present garrisons, there generally being about 140 or 150 vacant beds.

The hospital at Camp Stotsenburg, which was an old dilapidated wooden structure, has been rebuilt, and while not as large or of as good construction as is desirable for this station, yet it was the best that could be done under the present restrictions, which do not permit of permanent construction at this station.

The hospital at Camp John Hay, which is at Baguio, in the mountains, is an attractive building, and is used to a limited extent as a convalescent hospital for cases arising in other posts of the department.

B. DENTAL SANITATION.

Considerable attention has been given to the work of the dental surgeons. In this connection the condition of the teeth of enlisted men is looked upon as an unsanitary condition that should be corrected if possible with the limited means at hand. As an unsanitary condition it becomes a matter of personal concern of each post surgeon. The dental clinic is considered to be a department of the hospital the same as the eye or ear department, or the laboratory. The initiative in directing the work of improving the unsanitary condition belongs to the surgeon the same as in any other unsanitary condition, instead of the initiative being taken by the patient as contemplated by Army Regulations. It needs the teamwork of the organization commanding officers, the surgeon, and the dentist to be most effective. The treatment of the unsanitary dental conditions of the enlisted men has the first call for consideration. At the same time the facilities of the dental clinic are apportioned between the needs of officers, their families, and emergency dentistry, and the correction of the unsanitary condition of the soldiers' teeth.

The necessity for system in this matter is shown by a survey of a detachment of the Medical Department of 90, which showed that 70 per cent needed some dental treatment, extending from filling 1 or 2 cavities in one, to the extraction of 17 teeth in another. A survey of one company of Engineers showed that there were 525 cavities. It is believed that about 70 per cent of the enlisted men of the line need some dental treatment.

C. HOUSING OF THE TROOPS.

The troops in this department are, as a general rule, well housed except as to the China expedition. At present there exists there a serious overcrowding. The troops are quartered in rented buildings owned by a Chinese corporation which in constructing the new buildings made no provision for ventilation and has thus far refused to provide any. The crowded condition at present allows less than 500 cubic feet in the dormitories, and at times about 300 feet to the prisoners in the guardhouse. This close confinement shows itself in the high rate for tuberculosis and pulmonary disease. Recommendation has been made to reduce the forces so as to allow 700 cubic feet per man, or secure other quarters. This matter is still under consideration.

The screening of the barracks at Camp Stotsenburg has been completed during the past year. This screening was first recommended 12 years ago.

D. HEALTH OF THE TROOPS.

The increase in both the admission rate and constantly noneffective was due to alcoholism, dengue, and venereal diseases; the admission rate for disentery was reduced from 8.8 in 1916 to 5.0, malaria from 54.8 to 51.7, and tuberculosis from 5.0 to 4.9 per 1,000.

As compared with 1916 alcoholism shows an increase among white and colored Americans, and a decrease among Philippine scouts; dengue and venereal diseases a general increase all around; dysentery a general decrease; malaria a decrease in American white, the increase being in American colored and Philippine scouts, while tuberculosis has decreased in American white and Philippine scouts and increased among American colored.

The comparative admission rates for the posts in the Department for the years 1916 and 1917 are given below:

TABLE No. 149.—*Admission rates, posts, Philippine Islands (absolute numbers).*

Posts.	Admission rates per 1,000.	
	1916	1917
Augur Barracks	673	737
Camp Eldridge	1,175	1,219
Camp John Hay	666	629
Camp Keithley	432	586
Camp McGrath	758	522
Camp Overton	517	637
Camp Stotsenburg	1,203	1,217
China expedition	979	939
Cuartel de Espana	885	1,446
Fort Santiago	494	615
Fort Mills	604	648
Fort McKinley	915	922
Pettit Barracks	316	529

Malaria.—The malarial situation continues to show great improvement, the admission rate being 51.7 per 1,000 against 54.8 per 1,000 in 1916; 65.6 in 1915, 93.9 in 1914, 125.4 in 1913, and 188 in 1912. The rate per 1,000 in 1917 was the lowest since American occupation.

TABLE No. 150.—*Admission rates per 1,000, posts, Philippine Islands.*

Posts.	Admission rates per 1,000.	
	1916	1917
Camp Stotsenburg	186.9	143.9
Fort Mills	61.3	49.8
Pettit Barracks	40.2	190.3
Augur Barracks	96.3	74.6
Camp Keithley	12.8	17.2
Camp Eldridge	27.3	42.9
China expedition	9.6	2.9
Fort Wm. McKinley	29.9	23.2
Camp John Hay	14.2	1.8
Camp McGrath	15.8	53.4
Cuartel de Espana	8.9	1.6

The increase at Pettit Barracks was largely due to disease being epidemic at that station during the month of May, in which there were 49 cases admitted (total cases for the year, 87).

Dengue.—The admission rate for this disease was 55.6 against 11.3 per 1,000 in 1916. The increase was largely due to dengue being prevalent during May, June, and July at Cuartel de Espana and at Augur Barracks during April, May, and June.

Dysentery—amoebic and bacillary.—Thet otal admissions in the department for 1917 were 93 as against 170 in 1916, a decrease of 77 cases, or 5 per 1,000, as against 8.8 in 1916.

Most of the cases of dysentary were probably due to contact with natives who had this disease. A muchacho at Camp Stotsenburg, working for bachelor officers, infected several of them.

Smallpox.—Seven cases of smallpox occurred, one among Americans and six among Philippine scouts; all recovered. Cases occurred at the following stations: Augur Barracks, 1 scout in January; Camp McGrath, 1 scout in February, and 2 scouts in December; China, 1 American in May; Warwick Barracks, 2 scouts in November.

Typhoid fever.—No case reported during the year.

Leprosy.—Two cases were discovered among the Philippine scouts, one at Augur Barracks and one at Ludlow Barracks. Both were discharged on certificate of disability and turned over to the civil authorities.

Beriberi.—There were two cases of beriberi at Augur Barracks in August. Both were Philippine scouts.

Cholera.—No case reported during the year.

Fort Mills.—Although the admission rate and constantly noneffective rate are somewhat higher than for last year, due principally to venereal diseases and dengue, the admission rate per 1,000 is the lowest in the department for American troops.

No diseases of sufficiently marked prevalence to be deemed worthy of note have occurred during the year among the command. During the last two months of 1917 there were a somewhat large number of cases of mumps and chickenpox, and several of whooping cough. At the stockade for Bilibid prisoners, which, although it has served for several years, is unsatisfactory in almost every particular, and to which it is understood, extensive alterations and repairs are contemplated, a large number of cases of ophthalmia have occurred.

Venereal diseases.—There has been a slight increase in the venereal diseases during the past year. This is largely due to the large number of new recruits received in this department, and also to the constant change of officers with organizations, these officers being as a rule with less experience than those who formerly served with the commands, and lastly to the increase in pay which the soldiers have received during the past year. All methods for the prevention of venereal disease, providing abundant places for taking prophylaxis; trials of patients for failure to take prophylaxis; lectures, circulation of instructions in regard to venereal diseases have been used in an effort to keep down the rates of venereal diseases.

The records of the Department Judge Advocate's office show that for little less than five months there were 268 trials for failure to take the prophylaxis, in comparison with 1,094 trials for failure to take the prophylaxis in the whole Army during the year ending June 30, 1916.

E. CHINA EXPEDITION, TIENTSIN, CHINA.

The admission rate and constantly noneffective rate per 1,000 are considerably lower than for the previous year. The admission rate for venereal disease also shows an improvement, being 355.6 per 1,000 against 378.6 for 1916.

The present sanitary condition of the post as a whole is good but consider the various company barracks entirely too small to allow the required amount of floor space per man. The average amount of air space per man in the various barracks is about 400 cubic feet. The barracks were very poorly heated with stoves, and as the weather was a bit cold the men would not open the windows. As a result the squad rooms have been very poorly ventilated, especially at night time. In a recent inspection made by me during the night I found men sleeping in six company barracks without a window open. On this same inspection I found 30 prisoners sleeping in two small roms having an aggregate air space of less than 4,500 cubic feet; one room had no windows open while the other had one small window of about four square feet open. The hospital building is also too small. It seems that the plans called for a 30-bed hospital, allowing each patient about 1,000 cubic feet of air space. However, it has been necessary to increase the number of beds to 60, and the hospital averages between 50 and 60 patients at all times. I consider the crowded condition and poor ventilation of the barracks as one of the principal factors for giving this hospital its high rate of admission.

29. PANAMA CANAL DEPARTMENT, ANCON, CANAL ZONE.

(Extracts from report of department surgeon.)

The Panama Canal Department became a separate department on July 1, 1917, in compliance with General Order 76, War Department, paragraph 6, June 26, 1917. Previous to this time it had been a part of the Eastern Department, the great advantage of having it a separate department is that much time is saved by having action taken in matters which before this had to go to Governors' Island for action. War conditions, especially the shortage of medical officers and more particularly of the Regular Medical Corps, have caused the department surgeon to assume the duties usually carried out by a sanitary inspector and a disbursing officer.

This department includes the following posts: Forts Sherman, Randolph, and De Lesseps, Artillery posts at the Atlantic end of the Canal; camps at Gatun, Gaillard, Empire, and Otis; Infantry posts and at Corozal, a mixed mounted post, consisting of Cavalry, Field Artillery, Engineers, Signal Corps, and Ambulance Company No. 8; Fort Amador (formerly Grant), a Coast Artillery post guarding the Pacific terminal of the canal, and Quarry Heights garrison, the department headquarters post and station of the provost guard. In addition to these main stations are a number of substations both Artillery and Infantry guarding the coast line, locks, docks, etc., owing to existing war conditions. Also a number of mapping parties are out in the jungle making maps, surveys, etc., for the Engineers. These men become exposed to mosquitoes and this exposure has a tendency to increase the malaria.

The general health of the command has been very good. There were no epidemics or other unusual incidence of infectious diseases, except an epidemic of measles and

German measles which was imported from Porto Rico by that regiment on its arrival from Porto Rico and which continued until nearly all nonimmunes of the regiment had taken it. No deaths occurred and it has subsided now.

A. MALARIAL FEVER.

This disease, though present to a moderate degree owing to so much outside work as before mentioned has not been bad and is readily kept under control.

All barracks and quarters are wire screened and very few if any mosquitoes are found at any of the posts, some of them being absolutely free.

Many of the cases of malaria are recurrent and occur in men who have contracted the disease while in some of the outlying jungle stations and have recurrences at intervals afterwards.

There have been seven cases of this disease and, as in other tropical countries, it progresses very rapidly after being once contracted. All men who are found to have it are promptly transferred to Fort Bayard, N. Mex., except the Porto Ricans who are discharged and returned home.

It is believed that inferior scrutiny by the examining surgeons at time of enlistment is more to blame for the increase in this disease than the environment of the tropics.

Care of sick. —The care of sick in this department is done by sending all serious cases or those likely to be sick for more than a few days to Ancon Hospital, a large well equipped hospital at Ancon the southern terminus of the canal. This hospital is under the management of the Panama Canal and the Army patients admitted therein are on the same basis as if admitted to civilian hospital and the Army Medical Department pays $1.10 per day for each case with additional charges for any form of operation, X-ray or special treatment and the Quartermaster Department of the Army pay 40 cents per day for subsistence.

A few beds, about a dozen, are kept at the various posts for the accommodation of the mild cases but the buildings furnished are in most cases crowded and poorly fitted for hospital purposes. Some cases from the adjacent posts are admitted to Colon Hospital at the other end of the Canal and are treated there on the same terms as at Ancon.

It is recommended that all Army cases sent to these hospitals be treated and attended only by Army Medical Officers as this would be more satisfactory to the patients themselves, would shorten the loss of time in hospital, would have the Army nomenclature for diseases and would give the medical officers a better opportunity to see and attend the cases cropping up among soldiers, officers and their families.

B. SANITATION.

This subject has taken up most of the time in order to continue and keep up the good work which was so well done when the canal was built. A civilian sanitary inspector is employed by the month, whose duty it is to have charge of the sanitary gangs in the different posts and lay out and supervise their work and to find out and investigate sanitary defects on all the military reservations. The present incumbent, is a most careful and conscientious man and performs his varied duties in an excellent manner. He is thoroughly familiar with mosquito control. The mosquito with its partner, malaria, is the chief enemy of our sanitary work and to rid the posts and their surroundings of it is our principal aim. For this purpose, sanitary gangs (negroes) are employed in each post and paid from funds allowed from medical and hospital appropriation by the Surgeon General, $50,000 being allotted to this department for this purpose. Out of this fund are purchased oil, larvicide, implements for cutting grass and undergrowth, tiling, cement and materials for ditching. Moreover, motor ambulance supplies, ice, and laundry are paid from this account, but the largest item of all is the pay of these sanitary gangs who do the work. Nearly all posts are now practically free of mosquitoes and the rest are nearly so, and malaria is not contracted in the posts but on outside duty, in the jungles, on the locks and at other similar substations. The posts in the jungle are now being cleared and ditched and it is hoped will soon be free or almost so of malaria. Our principal work is on these places now.

The screening of all occupied buildings is good but it is necessary to repair or replace it frequently owing to dampness of the climate and the frequent breaks which occur in it.

A great deal of tile draining has been done and some concrete draining also and the results achieved are excellent; swampy wet ground has been made dry.

Nearly all the buildings at all the posts except the new ones are old, fast decaying, overcrowded and, worst of all, full of vermin. Many of these buildings have been used by the canal employees and others, among whom were negroes. Thus the presence of bedbugs is readily accounted for. They make many of the buildings intolerable. All efforts to get rid of the bugs permanently are futile, because many manage to escape destruction in the cracks of the old buildings and soon reappear in increased numbers. The best and only solution of this problem seems to be the construction of new posts of concrete whose buildings will not offer vermin shelter and protection.

The overcrowding in some posts is very bad particularly Camp Otis, where the Porto Rican regiment is stationed; but other Infantry posts are almost as bad. They were evidently planned on the basis of the old peace strength of companies, and when the companies were increased to war strength the same buildings were used; which has caused overcrowding. New barracks and extensions are being built at some posts now, but this is only temporary relief. There is plenty of good shower baths for the men; which is not only a comfort for them but an excellent sanitary measure.

30. HAWAIIAN DEPARTMENT, HONOLULU, H. T.

(Extracts from reports of department surgeon.)

A. GENERAL.

Comparison with former years.—The year 1917 has the highest morbidity rate of any since the formation of the Hawaiian Department. This high rate of admissions and days lost in line of duty is to a great extent due to the infectious diseases of childhood introduced by recruits, and also to the fact that young untrained men, until seasoned, are more liable to appear on sick report. Many injuries incident to intensive training added not a small proportion to this increase. Diseases not in line of duty, especially venereal, show a gratifying decrease.

Epidemic diseases.—With the arrival of numerous recruits, especially in the middle half of the year, there were introduced into the department measles, mumps, spinal meningitis, scarlet fever, and other infectious diseases. In all cases the recently joined men were kept separate until after the period of incubation had safely passed, but in spite of best efforts some infection occurred in the command.

Typhoid fever.—There were 4 deaths among 55 cases of officers and enlisted men (practically all immunized). Among the civilians at Castner, approximately 1,100, there were 48 cases of typhoid due to the water-borne epidemic. Thirty-three of these were treated under Army supervision at Schofield Barracks and department hospital with 4 deaths; fifteen were treated under civilian auspices with 3 deaths. Of the 8 cases of contact infection there was 1 death. The full history of the water-borne epidemic at Schofield Barracks (55 cases, officers and enlisted men; 48 civilians) will be found in completed reports of board of medical officers at Schofield Barracks.

Venereal diseases.—Taking the department as a whole, the rate per 1,000 of Hawaiian infection (38) is most creditable when compared with that of 1916 (76.5), or 1915 (67.5). Comparing the rate per 1,000 of the first (10.7) and second (11.6) quarters with the third (8.3) and fourth (8) quarters, a decided decrease is noted. As the total number of prophylactic treatments per 1,000 of mean strength in the first quarter of 1917 was 408, in the second 439, in the third 506, and in the fourth 495, the above noted decrease in venereal disease would not appear to be due to a greater continence, but can be attributed to the fact that the more or less absence of alcohol in the last two quarters had much to do with the early and proper use of the prophylactic treatment after exposure, and thus prevented infection.

Transfer of patients to United States.—There were 253 patients transferred to the Letterman General Hospital during the year. Of this number 73 were for tuberculosis, 70 for mental and nervous disorders, 16 for syphilis, 14 for results of injuries, and 80 for various other conditions. This is an increase of 99 over last year, and is due to a greater average strength and a weeding out of many unsuitable recruits.

B. SANITATION OF POSTS.

De Russy.—A considerable tract of land on the western side of the reservation, which is low, with water standing on it, being at the level of the water in the bay, affords an excellent breeding place for mosquitoes. An estimate submitted to Congress by the Engineer Department for completing the filling in of this low land was disallowed as not being a proper charge against the Engineer Department.

A portion of this low land (holes and swamps), in rear of the new quartermaster stables, is being filled in by post labor as available from day to day. The balance is being oiled to control mosquitoes propagation, but is not entirely successful, as some mosquitoes still breed on privately owned swamp land adjoining the reservation.

Kamehameha.—In this sanitary report for March, 1917, the surgeon reports a photograph forwarded to the Adjutant General, showing conditions at the post during a recent flood, but with no recommendations. In his indorsement on this report the department commander invites the attention of The Adjutant General to recommendations contained in the February report, and states: "This matter is now in the hands of the constructing quartermaster, who is preparing plans and specifications for the flood gates as recommended by the district engineer, United States Geological Survey." Nothing further appears to have been done in the matter.

Ruger.—Insufficient outlet for sewage and drainage from the post laundry and toilets on the battery side of the fort during heavy rains is noted in the December sanitary report. The commanding officer, coast defenses of Oahu, states in his indorsement thereon of January 3, 1918, that the special sanitary report referred to therein will be forwarded in the near future recommending remedial action. The special sanitary report mentioned has not as yet been received in this office.

Schofield.—The sewer system for the post has been installed with the exception of the oriental section and is satisfactory. The oriental section for laborers of the Quartermaster Department, while much improved, is still far from sanitary. It can only be remedied by a complete reconstruction on sanitary lines on ground sufficiently high to admit its connection with the sewer system of the post.

The water supply has been the subject of much controversy since the outbreak of typhoid fever at the end of September and beginning of October. A board of officers (2 Engineer and 1 Quartermaster) are engaged in further study and elaboration. Meanwhile temporary chlorination plants are installed. This matter is fully discussed in the various reports of the typhoid epidemic.

Shafter.—The sewer system has been reported inadequate. Action is awaiting final determination of the ultimate size of the garrison.

A steam laundry has been recommended as a sanitary measure, but the same is held up owing to unsettled conditions. New arrangements for the operation of the post laundry were made in September which eliminated many of the faults complained of.

An enlarged dispensary has been frequently urged and is a necessity.

Personnel.—But six officers of the Medical Corps remained in these islands December 31, 1917. (Two of these were ordered to the States by cablegram January 19.)

Many of the reliable noncommissioned officers were promoted to line or staff commissioned ranks and others sent to the mainland, where their services are more urgently required. The replacing of these by only partially trained men (in a military sense) has affected efficiency and is one of the natural results of unpreparedness for war. The troops of these islands have been to a great extent under conditions existing prior to war and as such can well accommodate themselves to the altered conditions of a new personnel.

Instruction to recently joined officers of the Medical Reserve Corps has been given at both the department hospital and Schofield Barracks. The results have been good, though one can not expect independently acting professional men of middle life to readily grasp Army methods so different from those to which they have been accustomed.

III. Hospital Division.

1. HOSPITALIZATION PROGRAM.

Soon after the United States entered the war the need of a definite hospitalization program of larger scope was apparent. Early in July, 1917, a hospital division was created in the office of the Surgeon General, which was charged with the responsibility of providing hospitals in the United States for the cantonments of the National Army and the National Guard encampments, and general hospitals and special hospitals for the receipt of sick and wounded from overseas and patients transferred from the various camps, who required prolonged treatment. In other words, this division was charged with the responsibility of handling the entire program of hospitalization in the United States and, in addition to this, with the task of organizing all overseas units, such as base hospitals, evacuation hospitals, ambulance companies, field hospitals, hospital trains, and hospital ships.

Early in 1918, as the work of the department was increasing enormously, it was deemed advisable to effect a reorganization for the purpose of better control and more efficient service resulting from better distribution of responsibility.

Inasmuch as the first divisions of the new National Army were to be ordered to camp in the early fall, it was necessary to proceed rapidly with the development of preparations for the establishment of large hospitals in all of the National Army and National Guard camps. Plans were developed, hospitals constructed, personnel selected, and with the opening of the camps, 32 hospitals, with a normal bed capacity of 44,000, were put in operation early in the autumn of 1917, in time to receive the sick from these large camps. Twenty-five of these were hospitals of 1,000 beds or over. It will therefore be apparent that the accomplishment of this task represented no small achievement.

At the same time plans have proceeded for the preparation of hospitals for the sick and wounded overseas. In general the basis of the hospitalization program is as follows:

A. FOR THE CARE OF THE SICK AND WOUNDED IN THE UNITED STATES.

Hospitals designed to take care of approximately 4½ per cent of the command have been constructed in the National Army cantonments and National Guard camps.

Hospitals at posts and general hospitals have been enlarged by the construction of temporary wards near the main buildings. The barracks of a few posts have been obtained and others have been requested. Embarkation and debarkation hospitals have been provided and others are to be provided at the ports by construction of new temporary buildings and the use of hotels and other buildings suitable for the purpose.

From time to time it has been necessary to add additional buildings to the base hospitals in the National Army and National Guard camps. In general this extension has been accomplished by the addition of 12 two-story convalescent barracks for walking cases, leaving the one-story buildings for the more seriously ill, and affording better means for the segregation of cases.

B. FOR THE CARE OF THE SICK AND WOUNDED FROM ABROAD.

A survey of the civil hospitals of the country was made early in the summer, and although of a superficial nature it disclosed the fact that it would not be practicable to rely to any great extent upon the civil hospitals of the country for the care of sick and wounded soldiers; first, because it was apparent that the civil hospitals would be called upon to meet an ever-increasing demand from the civil population; second, because to use the civil hospitals to any great extent would mean the distribution of soldiers in such small groups that it would make it exceedingly difficult to keep military control over them or to institute and carry out any constructive program for rehabilitation and reeducation.

A study has been made of available sites for hospital purposes, of large buildings, such as hotels, factories, etc., which could be used as hospitals, and of smaller places suitable for convalescent camps and homes. The resources of the Public Health quarantine stations and insane asylums of the country have also been made of record.

That part of the hospitalization program dealing with the care of sick and wounded from abroad has been based upon the figures from England and Canada, from which the conclusion has been drawn that it will be necessary to provide in the United States a bed capacity of

3½ per cent of the total number of troops serving abroad, the number of beds gradually increasing, from the fact that many cases will require prolonged treatment. In general it is planned to provide adequately in the nature of clearing hospitals or debarkation hospitals at the ports, in order that a sufficient number of beds may be available to receive any number of troops which may be returned. It is planned to provide an organization at each of these clearing hospitals which will make possible the speedy assignment of these patients to hospitals in the interior, distributing them in accordance with the nature of the disease or injury, so far as possible returning them to the section of the country from which they came. It is planned to place in each National Army district a large hospital group, sufficient to care for the men of that district returned from abroad, these hospitals to be conveniently located as to railroad facilities, the professional facilities of the large medical centers, and with due regard to the desirability of contact with industrial activities. It is intended to make these hospitals complete general hospitals, capable of providing for the physical and general reconstruction of all patients requiring such treatment. For this purpose use is being made of military posts, which may be converted into hospitals and of hotels and other suitable buildings which may be leased and made available for hospital purposes.

This program is proceeding fairly satisfactorily, although much delay has been incurred due to the fact that many of the military posts which have been requested for assignment to the Medical Department have not been made available. However, it is expected that hospitals in sufficient number and with adequate capacity will be provided at all times for the reception of the returned sick and wounded.

In the early stages of organization, officers of the regular Medical Corps were detailed from among the junior majors to organize, equip, and administer the military hospitals, the balance of the personnel being selected from the Medical Reserve, Sanitary, and Army Nurse Corps, enlisted men of the regular Medical Department, and by transfers from the draft and training camps. Officers for the administrative positions were found with great difficulty and, in most instances, were supplied from the Sanitary Corps by commissions given the more experienced noncommissioned officers of the Medical Department. These officers have performed most valuable service in the positions of adjutant, registrar, mess officer, and medical supply officer. The chiefs of the medical, surgical, and laboratory services have been selected from the best known and most capable and distinguished men of the profession in civil life, and have, with very few exceptions, contributed greatly to the success of these hospitals. The senior assistants on these services have also been specially selected, either by reputation or after observation at hospitals or training camps has proven their worth.

Women nurses have been supplied to all of these hospitals as rapidly as accommodations for them became available. Full assignement of nurses to duty at all hospitals would have been made in October, had quarters been available, but it was several months after the camps were built before nurses' quarters were completed, which made it impossible to assign these graduate nurses who were so badly needed. All the camps are now provided, however, with a competent and adequate supply of nurses. In general, the effort is made to assign nurses in the proportion of 1 to every 10 patients.

The original supply of enlisted men was obtained from the Medical Department and consisted of a detachment of 120 men for National Army cantonments and 100 men for the National Guard Camps. This detachment was increased by additions from the draft, up to 300 men for 500-bed hospitals, 360 for 800-bed hospitals, and 400 for 1,000-bed hospitals. In many instances it has been impossible to attain these figures, due to the inability to obtain men from the draft. At some hospitals enlistments have been made which have brought the detachments up to the figures given. In the last few months men have been assigned up to the quota. The majority of these enlisted men are absolutely untrained for their duties, and at first there was much embarrassment and inefficiency because of this lack of training. Courses of instruction have been going on at all hospitals and the reports indicate that these men are developing into very satisfactory hospital attendants. An effort has been made wherever possible to transfer men with special qualifications for duty in the office and in other positions requiring special training, such as stenographers, typists, cooks, machinists, accountants, etc.

Owing to the anomalous position occupied by these base hospitals at the cantonments, great difficulty was experienced in determining the exact relation of the hospital to the division and to the Surgeon General's office. Existing regulations were modified and a working plan adopted. A new set of regulations was authorized by the Adjutant General on October 22 and has been found to operate satisfactorily.

Regulations governing the internal administration of these hospitals have been those prescribed in the Manual of the Medical Department for General Hospitals. Specific hospital orders for the administration of cantonment base hospitals were very well covered in regulations drawn for the base hospital at Fort Bliss, Tex., and were based upon the experience of some 16 months in the handling of similar situations. These regulations were sent to each base hospital for the information and assistance they might afford to the commanding officer.

The arrangement of service prescribed in the Manual of the Medical Department was modified by memorandum approved by the Surgeon General and the Secretary of War as follows:

Attention is called to the fact that the memorandum previously issued by the Surgeon General (recognition of sections representing specialists) and paragraph 290 is amended to provide for three services, namely, surgical, medical, and laboratory, with a chief for each service, and further, to provide that each of these services shall include the following special sections, or as many as may be necessary (500-bed basis):

SURGICAL SERVICE.

One chief of service; general, chest: 4 surgeons—abdomen, fractures; 4 surgeons (head section)—brain, eye, ear, nose, and throat, plastic (face and mouth); 1 surgeon, orthopedic; 1 surgeon, urology; 1 roentgenologist; 2 dentists.

MEDICAL SERVICE.

One chief of service, 4 physicians (including 1 neurologist), 1 or 2 psychiatrists (in camp hospitals in United States).

LABORATORY SERVICE.

Includes pathology, bacteriology, serology, chemistry, morgue and public health laboratory work for the command. One chief of service (to cover pathology, bacteriology, and serology), 1 assistant. (All other laboratory workers are under the chief of this service).

For the head section a section chief may be designated, if desired.

The commanding officer will organize a convalescent camp as the conditions warrant.

The nursing service remains as at present, with the provision that the number of nurses may vary according to the needs of the service.

Paragraph 307 is amended to include the laboratory chiefs.

Attention is called to the fact that the provision of the several specialists in the medical and surgical organization is solely for the purpose of providing competent professional attention for the sick and wounded. The individual members of the staff, although assigned to duty with the organization for the purpose of providing special skilled service as the occasion may warrant, are nevertheless to be used as the chiefs of service and the commanding officer may direct. This provision is made in order that the work may be properly covered at all times and in order to accomplish the results expected of good organization and administration.

An adequate reference library has been provided in each hospital.

In October duplicate personnel was sent to each hospital at the National Army camps for the purpose of training officers and enlisted men and to supply sufficient personnel for the organization of base hospitals for overseas service. Special instructions were given that all of the important administrative and professional officers of the hospital should have understudies particularly adapted for the work. This was done for the purpose of providing competent men to serve as commanding officers, adjutants, registrars, mess officers, supply officers, or quartermasters, as the case might be, in order that a sufficient supply of men, trained in these duties, might be available for the staffing of additional general hospitals in this country and for the overseas base hospitals. One of the great difficulties has been the lack of trained administrative and executive officers. The plan has worked fairly well, although there has never been a time when it could be said that a reserve supply of well-trained administrative officers was on hand. During the last few months, through the cooperation of the food division, an effort has been made, and successfully, to obtain competent mess officers by selecting experienced caterers, hotel and club stewards and having them commissioned in the Sanitary Corps. In this way practically all hospitals of large size have been furnished with an officer, well qualified by experience, to serve as mess officer.

One of the most troublesome problems in the administration of the military hospitals is the management of the disposition of substandard medical officers. Instructions have been issued at various times that all substandard officers were to be given a thorough trial in the various branches of hospital work in order to find the work for which they were best suited, and if, after proper trial and instruction, it is determined that they are not capable of performing the duties of medical officers, they are ordered before efficiency boards for recommendation as to their discharge or other disposition.

The hospital division has been divided, as mentioned above, into four sections as follows: Bureau of administration, overseas section, section of selection, construction and repairs, and the Army school of nursing. An outline of the work of each section follows:

2. BUREAU OF ADMINISTRATION.

It has been the policy of the hospital division to interfere as little as possible with the details of internal administration of the various military hospitals, it being recognized that these hospitals can not be administered in detail from a central office in Washington. Efficiency boards have been appointed in each of the hospitals, consisting of the commanding officer and the chiefs of the medical, surgical, and laboratory services. These boards meet twice a month to conside questions of policy and needs of the hospital, and make a stenographic report of the meeting, with such recommendations as are deemed advisable. These reports are received in the hospital division of the Surgeon General's Office, as are also reports of the inspections of the sanitary and inspection divisions. Two inspecting nurses are serving in the hospital division, and from time to time they visit the various military hospitals, carefully inspecting the character of the nursing service. All of these reports are carefully scrutinized by a follow-up officer of the hospital division, and from time to time instructions are issued to the various hospitals indicating lines in which experience has seemed to demonstrate that administration can be improved.

A daily report of the bed capacity of all the larger military hospitals of the United States is received, giving the number of patients and the number of beds vacant. This work is in charge of one officer, who keeps the census report up to date and handles the transfer of all patients from one district to another and from the ports of debarkation to the general hospitals of the interior. This system is working very smoothly and with entire satisfaction.

The bureau of administration of the hospital division handles all questions of policy, sends out instructions from time to time, receives and checks reports from all efficiency boards, follows up all the delayed actions, handles all complaints, assigns and transfers all personnel, carries the census on daily reports, and tends to the transfer of all patients.

At the close of the fiscal year, June 30, the following hospitals are in existence and are handled by the hospital division, not including the many small post and camp hospitals more directly under the different territorial departments. (These hospitals during the year have treated 646,227 patients.)

TABLE NO. 151.—*Capacity of hospitals.*

	Normal bed capacity.	Additional bed capacity under construction.	Total authorized bed capacity when construction is completed.
BASE HOSPITALS, NATIONAL ARMY.			
Custer, Mich	1,125	600	1,725
Devens, Mass	1,300	724	2,024
Dix, N. J	1,600	424	2,024
Dodge, Iowa	1,900	112	2,012
Funston, Kans.[1]	....	(1)	....
Grant, Ill	1,300	724	2,024
Gordon, Ga	1,252	760	2,012
Jackson, S. C	2,024	....	2,024
Lee, Va	1,454	570	2,024
Lewis, Wash	2,300	....	2,300
Meade, Md	1,400	624	2,024
Pike, Ark	2,024	....	2,024
Sherman, Ohio	2,024	....	2,024
Taylor, Ky	2,024	....	2,024
Travis, Tex	2,200	....	2,200
Upton, Long Island	1,500	543	2,043
Total	25,427	5,081	30,508
BASE HOSPITALS, NATIONAL GUARD.			
Beauregard, La	1,250	....	1,250
Bowie, Tex	1,436	....	1,436
Cody, N. Mex	809	380	1,189
Doniphan, Okla	916	....	916
Fremont, Cal	676	380	1,056
Greene, N. C	1,264	380	1,644
Hancock, Ga	984	620	1,604
Kearney, Cal	1,200	....	1,200
Logan, Tex	1,156	....	1,156
MacArthur, Tex	1,751	....	1,751
McClellan, Ala	1,535	....	1,535
Sevier, S. C	1,296	....	1,296
Shelby, Miss	1,000	296	1,296
Sheridan, Ala	1,285	....	1,285
Wadsworth, S. C	1,264	780	2,044
Wheeler, Ga	648	540	1,188
Total	18,470	3,376	21,846

[1] See Fort Riley, Kans.

TABLE No. 151.—*Capacity of hospitals*—Continued.

	Normal bed capacity.	Additional bed capacity under construction.	Total authorized bed capacity when construction is completed.
GENERAL HOSPITALS.			
Army and Navy General Hospital, Hot Springs, Ark	322	....	322
United States Army General Hospital, Fort Bayard, N. Mex	730	270	1,000
Letterman General Hospital, San Francisco, Cal	1,100	100	1,200
Walter Reed General Hospital, Takoma Park, D. C	1,300	1,000	2,300
No. 1, Williamsbridge, N. Y	1,050	....	1,050
No. 2, Fort McHenry, Md	700	323	1,023
No. 3, Colonia, N. J	467	1,000	1,467
No. 4, Fort Porter, N. Y	160	....	160
No. 5, Fort Ontario, N. Y	500	300	800
No. 6, Fort McPherson, Ga	1,517	....	1,517
No. 7, Roland Park, Md	150	....	150
No. 8, Otisville, N. Y	200	450	650
No. 9, Lakewood, N. J	1,000	....	1,000
No. 10, Boston, Mass	....	288	288
No. 11, Cape May, N. J	800	....	800
No. 12, Biltmore, N. C	525	....	525
No. 13, Dansville, N. Y	....	....	....
No. 14, Fort Oglethorpe, Ga	1,400	866	2,266
No. 15, Corpus Christi, Tex	250	....	250
No. 16, New Haven, Conn	200	350	550
No. 17, Markleton, Pa	150	175	325
No. 18, Waynesville, N.C	280	....	280
No. 19, Azalea, N. C	....	1,000	1,000
No. 20, Whipple Barracks, Ariz	200	....	200
Total	13,001	6,122	19,123
UNITED STATES ARMY HOSPITALS.			
Hospital, Denver, Colo	....	1,000	1,000
BASE HOSPITALS.			
Fort Bliss, Tex	935	....	935
Fort Benjamin Harrison, Ind	300	....	300
Fort Logan H. Roots, Ark	500	....	500
Fort Des Moines, Iowa	1,158	....	1,158
Fort Riley, Kans	2,448	620	3,068
Fort Sam Houston, Tex	1,560	....	1,560
Humphreys, A. A., Accotink, Va	637	....	637
Johnston, Jos. E., Jacksonville, Fla	816	....	816
Edgewood Arsenal, Edgewood, Md	200	....	200
Total	8,654	620	9,274
HOSPITALS, PORT OF EMBARKATION, HOBOKEN, N. J.			
Embarkation Hospital, Camp Merritt, N. J	1,608	600	2,208
Base Hospital, Fox Hills, Staten Island, N. Y	1,762	....	1,762
Base Hospital, Camp Mills, Long Island, N. Y	813	....	813
Evacuation Hospital, Ellis Island, N. Y	738	....	738
Military Hospital, Hoffman's Island, N. Y	694	....	694
Military Hospital, Secaucus, N. J	292	....	292
CIVILIAN HOSPITALS.			
St. Francis Hospital, Jersey City, N. J	110	....	110
Isolation Hospital, Jersey City, N. J	30	....	30
St. Mary's Hospital, Hoboken, N. J	367	....	367
HOSPITALS, PORT OF EMBARKATION, NEWPORT NEWS, VA.			
Embarkation Hospital, Camp Stuart, Va	1,100	....	1,100
Total	7,514	600	8,114
RECAPITULATION.			
Base hospitals, National Army	25,427	5,081	30,508
Base hospitals, National Guard	18,470	3,376	21,846
General hospitals	13,001	6,122	19,123
United States Army hospitals	....	1,000	1,000
Base hospitals	8,654	620	9,274
Hospitals, ports of embarkation	7,514	600	8,114
Total	73,066	16,799	89,865

At the close of the year the number of officers, nurses, and enlisted men on duty in these hospitals was as follows:

TABLE NO. 152.—*Personnel of hospitals.*

	Officers.	Nurses.	Enlisted men.
BASE HOSPITALS (NATIONAL ARMY).			
Camp Custer, Mich	84	120	441
Camp Devens, Mass	74	112	409
Camp Dix, N. J	95	116	431
Camp Dodge, Iowa	126	201	643
Camp Funston, Kans	114	192	906
Camp Grant, Ill	84	87	593
Camp Gordon, Ga. (per Apr. 30 report)	73	121	333
Camp Jackson, S. C	94	131	597
Camp Lee, Va	115	120	583
Camp Lewis, Wash	86	188	605
Camp Meade, Md	100	94	473
Camp Pike, Ark	125	172	552
Camp Sherman, Ohio	95	130	582
Camp Taylor, Ky	90	131	576
Camp Travis, Tex	98	124	526
Camp Upton, Long Island, N. Y	94	97	624
BASE HOSPITALS (NATIONAL GUARDS).			
Camp Beauregard, La	84	98	556
Camp Bowie, Tex	73	85	572
Camp Cody, N. Mex	79	80	523
Camp Doniphan, Okla. (Apr. 30, 1918)	60	82	432
Camp Fremont, Cal	46	91	283
Camp Greene, N. C	71	104	425
Camp Hancock, Ga	62	81	303
Camp Kearney, Cal	68	98	561
Camp Logan, Tex	54	100	495
Camp MacArthur, Tex	76	122	670
Camp McClellan, Ala. (Jan. 25, 1918)	64	45	397
Camp Sevier, S. C	71	104	388
Camp Shelby, Miss	84	95	532
Camp Sheridan, Ala	65	80	389
Camp Wadsworth, S. C. (Apr. 30, 1918)	76	118	420
Camp Wheeler, Ga	59	96	305
GENERAL HOSPITALS.			
Hot Springs, Ark			
Fort Bayard, N. Mex. (per February)	12	44	245
Letterman Hospital, Cal. (per February)	35	114	347
Walter Reed Hospital, D. C. (per February)	58	121	520
No. 1, Williamsbridge, N. Y	65	117	537
No. 2, Fort McHenry, Md	45	79	499
No. 3, Colonia, N. J	8	15	103
No. 4, Fort Porter, N. Y	27	14	147
No. 5, Fort Ontario, N. Y	21	16	247
No. 6, Fort McPherson, Ga	48	80	506
No. 7, Roland Park, Md	4	3	73
No. 8, Otisville, N. Y	18	22	71
No. 9, Lakewood, N. J	32	107	155
No. 10, Boston, Mass			
No. 11, Cape May, N. J	25	55	198
No. 12, Biltmore, N. C	24	27	197
No. 13, Dansville, N. Y			
No. 14, Fort Oglethorpe, Ga	98	114	560
No. 15, Corpus Christi, Tex	16	12	105
No. 16, New Haven, Conn	16	26	125
No. 17, Markleton, Pa	11	11	62
No. 18, Waynesville, N. C	11	34	89
No. 19, Azalea, N. C	1		43
No. 20, Whipple Barracks, Ariz	7	4	65
BASE HOSPITALS.			
Fort Bliss, Tex	37	44	246
Fort Benjamin Harrison, Ind	15	27	214
Fort Logan H. Roots, Ark	29	41	194
Fort Des Moines, Iowa	31	79	466
Fort Riley, Kans	114	192	906
Fort Sam Houston, Tex	51	153	586
Camp A. A. Humphreys, Va	34		272
Camp Jos. E. Johnston, Fla	54	68	294
Edgewood Arsenal, Md	18	6	142

TABLE No. 152.—*Personnel of hospitals*—Continued.

	Officers.	Nurses.	Enlisted men.
PORTS OF EMBARKATION.			
Camp Merritt, N. J.	46	109	385
Fox Hills, N. Y.	37	54	144
Camp Mills, N. Y.	35	35	329
Ellis Island, N. Y.	25	46	209
Hoffman's Island, N. Y.	18	12	97
Secaucus, N. J.	9	17	48
Hoboken, N. J.	27	2	83
Camp Stuart, Va. (Newport News)	85	74	575
Total	3,748	5,562	26,285

3. ARMY SCHOOL OF NURSING.

It became apparent that if we were to keep up with the allowance of our tables of organization, some method would have to be found of supplementing the supply of graduate nurses by the use of unskilled women. After careful consideration of various plans, it was decided to establish the Army School of Nursing, with branch schools in various military hospitals in such number as might be necessary. This plan was approved by the Secretary of War May 25, and the first publicity was given out about June 21.

The plan provides a constructive method of increasing the supply of nurses for military service by the same system which has been found most successful in all of the civil hospitals of the country—the use of student nurses. Furthermore, the Army school plan provides the opportunity which the women of the country so earnestly seek—the opportunity of rendering service of a distinctive nature and, particularly, service in the care of the sick and wounded. This plan furnishes these women the opportunity desired, but prescribes that they must do the work under the regulations and the system prescribed by the Surgeon General.

During the month of June, 1918, the preliminary organization of the central office has been effected, printed forms have been adopted, and at the same time over 6,000 letters of application for papers or details of information have been received and disposed of. On June 30, 1918, 400 completed application papers have been filed. It is planned to start the first few schools during the month of July at the following hospitals: Walter Reed General Hospital, and the base hospitals at Camps Devens, Meade, Wadsworth, and Sherman. It is expected that during the coming year schools may be developed if the needs warrant it, and if the plan is found to be entirely successful, which may enroll as many as 10,000 pupil nurses.

It is confidently expected that the Army School of Nursing will prove the means of supplying to a large extent the necessary nursing service to the military hospitals of this country, thereby releasing the graduate nurses for the more important and strenuous work abroad, although other and additional measures are under consideration.

4. OVERSEAS SECTION.

1. The work of this section has been divided into two main parts:
   (1) Priority schedule.
   (2) Organization of units.
2. The units organized in this section are:
   (*a*) Base hospitals.
   (*b*) Evacuation hospitals.
   (*c*) Divisional sanitary trains.
   (*d*) Hospital trains.
   (*e*) Convalescent camps.
   (*f*) Convalescent depots.
   (*g*) Evacuation ambulance companies.
   (*h*) Army sanitary trains.
   (*i*) Sanitary squads.
   (*j*) Ambulance companies for camp use.
   (*k*) Hospital units.
   (*l*) Hospital ships.

3. One hundred and thirty-eight base hospitals were authorized by indorsement, Adjutant General's Office, December 28, 1917. Base hospitals Nos. 1 to 50, both inclusive, being Red Cross units, the preliminary organization and equipment having been handled by the American Red Cross under authority of the Secretary of War, the preliminary mobilization being as follows:

No. 1. Bellevue Hospital, New York City.
No. 2. Presbyterian Hospital, New York City.
No. 3. Mount Sinai Hospital, New York City.
No. 4. Lakeside Hospital, Cleveland, Ohio.
No. 5. Harvard University, Boston, Mass.
No. 6. Massachusetts General Hospital, Boston, Mass.
No. 7. Boston City Hospital, Boston, Mass.
No. 8. New York Hospital, New York City.
No. 9. New York City Hospital, New York City.
No. 10. Pennsylvania Hospital, Philadelphia, Pa.
No. 11. St. Joseph, St. Mary, and Augustana Hospital, Chicago.
No. 12. Northwestern University Medical School, Chicago.
No. 13. Presbyterian and Cook County Hospital, Chicago.
No. 14. St. Luke Michael Reese Hospital, Chicago.
No. 15. Roosevelt Hospital, New York City.
No. 16. German Hospital, New York City, United States only.
No. 17. Harper Hospital, Detroit, Mich.
No. 18. Johns Hopkins Hospital, Baltimore, Md.
No. 19. Rochester General Hospital, Rochester, N. Y.
No. 20. University of Pennsylvania Hospital, Philadelphia, Pa.
No. 21. Washington University Medical School, St. Louis, Mo.
No. 22. Milwaukee County Hospital, Milwaukee, Wis.
No. 23. Buffalo General Hospital, Buffalo, N. Y.
No. 24. Tulane University, New Orleans, La.
No. 25. Cincinnati General Hospital, Cincinnati, Ohio.
No. 26. Minnesota State University, Minneapolis, Minn.
No. 27. University of Pittsburg Medical School, Pittsburg, Pa.
No. 28. Christian Church Hospital, Kansas City, Mo.
No. 29. Medical School, University of Colorado, Denver, Colo.
No. 30. University of California, San Francisco, Cal.
No. 31. Youngstown Hospital, Youngstown, Ohio.
No. 32. City Hospital, Indianapolis, Ind.
No. 33. Albany Hospital and Medical College, Albany, N. Y.
No. 34. Episcopal Hospital, Philadelphia, Pa.
No. 35. Good Samaritan Hospital, Los Angeles, Cal.
No. 36. College of Medicine, Detroit, Mich.
No. 37. Kings County Hospital, Brooklyn, N. Y.
No. 38. Jefferson Medical School, Philadelphia, Pa.
No. 39. Yale Mobile Unit, Yale University, New Haven, Conn.
No. 40. Good Samaritan Hospital, Lexington, Ky.
No. 41. University of Virginia, University, Va.
No. 42. University of Maryland Medical School, Baltimore, Md.
No. 43. Emery University, Atlanta, Ga.
No. 44. Massachusetts Homeopathic Hospital, Boston, Mass.
No. 45. Medical College of Virginia, Richmond, Va.
No. 46. University of Oregon, Portland, Oreg.
No. 47. San Francisco Hospital, San Francisco, Cal.
No. 48. Metropolitan Hospital, New York City.
No. 49. University of Nebraska, Omaha, Nebr.
No. 50. University of Washington, Seattle, Wash.

4. These units were originally organized on a basis of 500 beds, but since have been expanded to 1,000 beds, as recommended by the commanding general, American Expeditionary Forces.

5. Base Hospitals Nos. 51 to 131 are in process of mobilization and will be ready for shipment overseas at an early date.

6. Ten base hospitals (venereal) were authorized on a 500-bed capacity, and the organization subsequently changed to 1,000 beds, at the request of the commanding general, American Expeditionary Forces. At the request of the chief surgeon American Expeditionary Forces, the special characterization of venereal hospitals was dropped, and they were organized under the dual request as 1,000-bed base hospitals without nurses. Seven have been organized. The personnel consists of 35 officers and 200 enlisted men.

7. Four special base hospitals have been organized:

Base Hospital No. 114, orthopedic.
Base Hospital No. 115, head.
Base Hospital No. 116, fracture.
Base Hospital No. 117, neuropsychiatric.

Nos. 114, 116, and 117 have been sent for duty overseas. No. 115 will be sent at an early date.

Base Hospital No. 102 has been organized in conjunction with the American Red Cross for service in Italy. It is now being equipped and will be sent over at an early date.

8. *Hospital units.*—Twenty-two hospital units have been formed, the preliminary organization of which was handled by the American Red Cross. These units were used to supplement the 500-bed base hospitals to bring them up to 1,000-bed organizations. The preliminary mobilization is as follows, except hospital unit "N" which was mobilized at General Hospital No. 5, Fort Ontario, N. Y., and was absorbed into the personnel of that unit:

A. Philadelphia, Pa. (Presbyterian Hospital), with Base Hospital No. 18, in France.
B. Yonkers, N. Y., with Base Hospital No. 23, in France.
C. Spokane, Wash., to report to Base Hospital No. 3, in France.
D. Louisville, Ky. (Louisville City Hospital), with Base Hospital No. 31, in France.
E. Richmond, Va. (Memorial Hospital).
F. New York City (Harlem Hospital), with Base Hospital No. 8, in France.
G. Syracuse, N. Y. (General Hospital, Syracuse), with Base Hospital No. 34, in France.
H. New York City (Fordham Hospital), with Base Hospital No. 9, in France.
I. Anderson, Ind. (St. John Hospital), to report to Base Hospital No. 1, in France. March 22, 1918.
K. Council Bluffs, Iowa, with Base Hospital No. 27, in France.
L. Pittsburg, Pa. (Allegheny General Hospital), with Base Hospital No. 24, in France.
M. Fort Wayne, Ind. (Hope Hospital).
N. New York City (Flower Hospital), Fort Ontario, N. Y.
O. Charlotte, N. C., with Base Hospital No. 6, in France.
P. Memphis, Tenn. (Memphis General Hospital), with Base Hospital No. 13, in France.
Q. Grand Rapids, Mich. (Butterworth-Blodgett University), to report to Base Hospital No. 20, France (at Fort McPherson, Ga., Mar. 30, 1918).
R. Fairfield, Iowa, with Base Hospital No. 32, in France.
S. Nashville, Tenn. (Vanderbilt University), with Base Hospital No. 17, in France.
T. Little Rock, Ark. (University of Arkansas), to report to Base Hospital No. 30, France (at Fort McPherson, March 30, 1918).
U. Burlington, Vt. (University of Vermont).
V. Dallas, Tex. (Baylor University), with Base Hospital No. 26, Fort McPherson.
W. Springfield, Ill. (St. John's Hospital), to report to Base Hospital No. 33, France (at Fort McPherson, Mar. 30, 1918).

9. *Evacuation hospitals.*—Sixty were authorized by indorsement, Adjutant General's Office, December 28, 1917. Nos. 1 to 24 have been organized, equipped, and trained at various camps. Of these, 8 are now on duty with American Expeditionary Forces.

10. *Evacuation ambulance companies.*—Twenty authorized by indorsement, Adjutant General's Office, December 28, 1917. Nine evacuation ambulance companies, each consisting of 1 officer and 37 enlisted men, have been organized and trained at the medical officers' training camps and at Camp Crane, Pa. Four are now on duty with American Expeditionary Forces. The organization of an evacuation ambulance company is as follows:

1 captain or lieutenant, Medical Corps.
3 noncommissioned officers.
3 mechanics.
2 cooks.
23 wagoners.
6 privates, first-class, and privates.

11. *Convalescent camps.*—Twelve were authorized by indorsement, Adjutant General's Office, December 28, 1917. Five camps, each consisting of 10 officers and 90 enlisted men, have been organized and trained at Medical officers' training camps. Two are now on duty with American Expeditionary Forces.

12. *Convalescent depots.*—One convalescent depot of five sections, A, B, C, D, and E, each section consisting of two officers and five enlisted men, have been organized and trained at the medical officers' training camp. Sections A and B are now on duty with the American Expeditionary Forces.

13. *Hospital trains.*—To comply with the request of the commanding general, American Expeditionary Forces, for personnel to man 50 hospital trains, the personnel of 34 trains (20 to 54, inclusive), which consists of 3 officers, 3 noncommissioned officers, 3 cooks, and 25 privates, have been organized at the two medical officers' training camps for overseas duty (indorsement, Adjutant General's Office, Dec. 28, 1917).

14. *Army sanitary trains.*—One Army sanitary train, motorized, of four sections, each section consisting of one ambulance company and one field hospital, has been authorized for overseas duty. Two sections have been organized and trained at the medical officers' training camps. One section is now on duty with the American Expeditionary Forces.

15. *Sanitary squads.*—Two sanitary squads for each division have been organized and accompanied their respective divisions overseas.

The sanitary trains for eight Infantry divisions, Regular Army, and one Cavalry division, Regular Army, consisting of 35 field hospitals and 35 ambulance companies, have been organized, equipped, and trained, and have accompanied their respective divisions overseas.

☛Forty-five Red Cross ambulance companies were enlisted in the Medical Enlisted Reserves, under authority from the War Department, dated July 30, 1917. Of these 45 companies, the personnel of 16 companies were transferred to the Medical Department under instructions from the War Department, dated July 2, 1917. The remaining 29 companies were assigned to sanitary trains of the National Army division, not more than two companies being sent to any one division.

Seventeen National Army divisions required 68 field hospitals and 68 ambulance companies to complete their sanitary trains. Twenty-nine ambulance companies being available in the Red Cross companies, it has been necessary to organize 68 field hospitals and 39 ambulance companies within these divisions. This has been done and these units are ready for overseas service.

The 17 National Guard divisions also required 68 field hospitals and 68 ambulance companies for their sanitary trains. The National Guard brought with them when drafted into the service 59 hospitals and 47 ambulance companies, many of which were incomplete in personnel, and all of which were incomplete in equipment. The other 9 field hospitals and 21 ambulance companies necessary to complete the National Guard sanitary trains have been organized within the divisions. This has been done, and these units are ready for overseas duty.

The following is a statement of division sanitary trains organized and ready for overseas duty (July 1, 1918):

1st Sanitary Train, 1st Division, Field Hospital and Ambulance Companies, Nos. 2 A. D., 3, 12, 13.
2d Sanitary Train, 2d Division, Field Hospital and Ambulance Companies, Nos. 1, 15, 16, A. D., 23.
3d Sanitary Train, 3d Division, Field Hospital and Ambulance Companies, Nos. 5, 7, 26, A. D., 27.
4th Sanitary Train, 4th Division, Field Hospital and Ambulance Companies, Nos. 19, 21, 28, A. D., 33.
5th Sanitary Train, 5th Division, Field Hospital and Ambulance Companies, Nos. 17, 25, 30, A. D., 29.
6th Sanitary Train, 6th Division Field Hospital and Ambulance Companies. Nos. 20 A. D., 37, 38, 40.
7th Sanitary Train, 7th Division Field Hospital and Ambulance Companies, Nos. 22 A. D., 34, 35, 36.
8th Sanitary Train, 8th Division Field Hospital and Ambulance Companies. Nos. 11, 31, 32, 43, A. D.
15th Sanitary Train, 15th Cavalry Division, Field Hospital and Ambulance Companies Nos. 10 A. D., 24 A. D., 39.
101st Sanitary Train, 26th Division Field Hospital and Ambulance Companies, Nos. 101, 102, 103, 104.
102d Sanitary Train, 27th Division Field Hospital and Ambulance Companies Nos. 105, 106, 107, 108, A. D.
103d Sanitary Train, 28th Division Field Hospital. Nos. 109, 110, 111, A. D., 112. Ambulance Companies Nos. 109 A. D., 110, 111, 112.
104th Sanitary Train, 29th Division, Field Hospital Nos. 113, 114, 115, 116, A. D. Ambulance Companies Nos. 113, 114, A. D., 115, 116.

105th Sanitary Train, 30th Division Field Hospital and Ambulance Companies Nos. 117, 118, 119, 120, A. D.

106th Sanitary Train, 31st Division, Field Hospital and Ambulance Companies Nos. 121, 122, 123, 124, A. D.

107th Sanitary Train, 32d Division, Field Hospital and Ambulance Companies Nos. 125, 126, 127, 128, A. D.

108th Sanitary Train, 33d Division, Field Hospital and Ambulance Companies Nos. 129, 130, 131, 132, A. D.

109th Sanitary Train, 34th Division, Field Hospital and Ambulance Companies Nos. 133, 134, 135, 136, A. D.

110th Sanitary Train, 35th Division, Field Hospital and Ambulance Companies Nos. 137, 138, 139, 140, A. D.

111th Sanitary Train, 36th Division, Field Hospital and Ambulance Companies Nos. 141, 142, A. D., 143, 144.

112th Sanitary Train, 37th Division, Field Hospital and Ambulance Companies Nos. 145, 146, 147, 148, A. D.

113th Sanitary Train, 38th Division, Field Hospital and Ambulance Companies Nos. 149, 150, 151, 152, A. D.

114th Sanitary Train, 39th Division, Field Hospital and Ambulance Companies Nos. 153, 154, A. D., 155, 156.

115th Sanitary Train, 40th Division, Field Hospital and Ambulance Companies Nos. 157, 158, 159, 160, A. D.

116th Sanitary Train, 41st Division, Field Hospital and Ambulance Companies Nos. 161, 162, 163, 164, A. D.

117th Sanitary Train, 42d Division, Field Hospital and Ambulance Companies Nos. 165, 166, 167, 168, A. D.

301st Sanitary Train, 76th Division, Field Hospital and Ambulance Companies Nos. 301, 302, 303, 304, A. D.

302d Sanitary Train, 77th Division, Field Hospital and Ambulance Companies Nos. 305, 306, 307, 308, A. D.

303d Sanitary Train, 78th Division, Field Hospital and Ambulance Companies Nos. 309, 310, A. D., 311, 312.

304th Sanitary Train, 79th Division, Field Hospital and Ambulance Companies Nos. 313, 314, 315, 136, A. D.

305th Sanitary Train, 80th Division, Field Hospital and Ambulance Companies Nos. 317, 318, A. D., 319, 320.

306th Sanitary Train, 81st Division, Field Hospital and Ambulance Companies Nos. 321, 322, A. D., 323, 324.

307th Sanitary Train, 82d Division, Field Hospital and Ambulance Companies Nos. 325, 326, 327, 328, A. D.

308th Sanitary Train, 83d Division, Field Hospital and Ambulance Companies Nos. 329, 330, A. D., 331, 332.

309th Sanitary Train, 84th Division, Field Hospital and Ambulance Companies Nos. 333, 334, 335, 336, A. D.

310th Sanitary Train, 85th Division, Field Hospital and Ambulance Companies Nos. 337, 338, 339, 340, A. D.

311th Sanitary Train, 86th Division, Field Hospital and Ambulance Companies Nos. 341, 342, 343, 344, A. D.

312th Sanitary Train, 87th Division, Field Hospital and Ambulance Companies Nos. 345, 346, 347, 348, A. D.

313th Sanitary Train, 88th Division, Field Hospital and Ambulance Companies Nos. 349, 350, A. D., 351, 352.

314th Sanitary Train, 89th Division, Field Hospital and Ambulance Companies Nos. 353, 354, 355, 356, A. D.

315th Sanitary Train, 90th Division, Field Hospital and Ambulance Companies Nos. 357, 358, 359, 360 A. D.

316th Sanitary Train, 91st Division, Field Hospital and Ambulance Companies Nos. 361, 362, A. D., 363, 364.

317th Sanitary Train, 92d Division, Field Hospital and Ambulance Companies Nos. 365, 366, 367, 368, A. D.

318th Sanitary Train, 93d Division, Field Hospital and Ambulance Companies Nos. 369, 370, 371, 372.

319th Sanitary Train, 94th Division, Field Hospital and Ambulance Companies Nos. 373, 374, 375, 376.

5. SECTION OF SELECTION, CONSTRUCTION AND REPAIRS.

A. STATUS AT CLOSE OF FISCAL YEAR 1917.

1. At the close of the fiscal year on June 30, 1917, there were about 10,000 hospital beds, distributed as follows:

Army posts	5,100
General hospitals	1,700
Base hospitals along the Mexican border about	3,400

2. The character of construction of the post hospitals referred to is well known to be usually of brick or concrete and of the permanent type construction. The character of construction in the general hospitals was similar and they differed mainly in size and in the grouping of buildings and the more elaborate installation of surgical and medical appliances and specialties. The character of construction in the base hospitals along the border was temporary in type, consisting of frame buildings usually ceilled and mostly heated by stoves and with scant plumbing.

B. THE WORK OF FISCAL YEAR 1918.

1. At the opening of this fiscal year, beginning July 1, 1917, the plans prepared for the hospitals for the National Army and National Guard camps were being turned over to the Quartermaster Department for execution. These plans as prepared in the Surgeon General's office were working drawings only, such as have always been prepared in this office. Some construction detail was gone into, but in the main the plans were working drawings quite free from detail as to wiring, plumbing, heating, sewer lines, lighting, etc., yet were comprehensive enough to serve in the field as construction drawings for the temporary character of construction which they represented. Due to the antiquated printing apparatus in the construction branch of this office, there was some delay experienced in printing the large numbers of plans required in the field for erection purposes, and it was necessary for weeks to run the printing machine 21 hours per day and demand overtime labor with no increase of pay possible. Therefore a modern motor-driven printer and a motor-driven gas-heated drier were installed. Some blue printing was done by outside firms, but this method was slow, costly, and generally very unsatisfactory. The majority of the printing firms were constantly well stocked with work due to the various Government construction activities which found it feasible to turn over for printing a certain class of work.

2. As above referred to, the character of these hospital buildings was temporary, yet differed materially from the temporary hospital construction at the so-called base hospitals on the border, in that there was more plumbing installation, there were central heating plants usually, and the hospitals were provided with sewage disposal systems.

3. In the preparation of these plans medical officers representing the various services and specialties, such as surgery, medicine, laboratory, eye, ear, nose, and throat, dental, X-ray, nervous, and mental, were consulted, and as far as time, necessary construction, standardization, and funds permitted plans were worked up to embody the essential features desired. These features were incorporated with other usual hospital features and activities and a general plan was thus evolved for the so-called typical 1,000-bed hospital. A 500-bed hospital was drawn by a similar process. In order to standardize equipment, materials, personnel, construction, and administration problems as much as possible, it was thought best to do this, and the 1,000-bed and the 500-bed types were thought to comply with the majority of conditions. The 500-bed hospital differs from the 1,000-bed hospital not only in the number of wards, which are the same in type, but in the size of the administration building, receiving building, general mess hall, kitchen, and certain other service features.

4. There were certain differences between National Army and National Guard hospitals as constructed. The National Army hospitals were built with central steam-heating plants, the buildings were lined throughout with wall board, and there was plumbing and sewage. The National Guard hospitals were without these features and the buildings were constructed with a somewhat lower clearance overhead. Both the National Guard and the National Army buildings had ridge ventilation from end to end. Later on, changes were made in the type of ventilating device to reduce cost and construction time. A modified ridge ventilator, full length of buildings, was adopted, which was inexpensive, easy to construct, and which so far has proven satisfactory. The differences in construction between the National Army and the National Guard hospitals was the result of instructions from higher authority based on the assumption that the National Guard camps where the National Guard

hospitals were located would not exist in the winter. This, however, did not prove to be the case. Requests had been made for interior lining and for plumbing and sewage, and late in the fall, too late for health, comfort, and economical installation, these necessities were authorized and installation began.

5. Table 151 shows briefly the average schedule of buildings for a so-called 1,000-bed hospital.

TABLE NO. 153.—*Average schedule of hospitals.*

Title.	Use.	Number of buildings.
Schematic hospital plan	Guide to quartermaster of desired arrangement	
Administration building	Administrative offices, dispensary	1
Officers' ward	Ward, kitchen, and mess for sick officers	1
Staff quarters	Quarters for hospital staff officers	1
Officers' quarters	Quarters, kitchen, and mess for medical officers on duty in hospital.	1
Nurses' quarters	Quarters, kitchen, and mess for nurses on duty	1
Laboratory and X-ray building	Laboratory and X-ray work	1
Eye, ear, nose, and throat and dental building.	Operating rooms and other features for these specialties.	1
Operating pavilion	All operating except that done in F-1	1
Hospital exchange	For hospital exchange, amusement, barber shop, etc.	1
Garage	For authorized hospital transportation	1
General mess and kitchen	Kitchen and mess hall for general use of enlisted sick and other sick not included in other messes.	1
Reception building	Reception and registration of admitted cases and storage of their effects; for their discharge as well.	1
Common single ward	For general sick	16
Common double ward	do	8
Isolation ward	For small groups of contagious cases	3
Medical Department enlisted men's barracks.	Barracks, toilet, and day room for enlisted personnel of hospital.	6
Medical Department enlisted, kitchen and mess.	Kitchen and mess hall for Medical Department men and others on duty not messed elsewhere.	1
Storehouse	For camp medical supply depot and for storage space for hospital.	4
Mortuary	For post-mortem work, preparation and viewing of the dead.	1
Chapel	For religious services and amusements	1
Laundry building	For storage and handling of linen and for future adaptation for laundry washing; also for disinfection purposes.	1
Psychiatric ward	For mental and nervous diseases	1

6. It was desired to provide hospital space for over 3 per cent of the command for which the hospital was to serve, but this was not authorized. This was, however, offset in a measure by the installation of certain corridors and porches. This was most fortunate, as was proven later in the winter before the general enlargement of these hospitals was authorized.

7. There was a shortage of competent draftsmen and designers throughout the remainder of the calendar year 1917, and it still exists to-day. It was, however, necessary at this period to increase the drafting force. This was rendered difficult because the Civil Service Commission was not able to supply draftsmen and the law does not permit this office hiring draftsmen except at a very low figure. This state of affairs rendered the commissioning of draftsmen about the only means by which this office could secure competent service. The circumstances almost warranted this recourse, which, however, was not resorted to. Architects, however, versed in hospital design and construction or in military procedure were commissioned in the Sanitary Corps for supervising duties. By considerable effort and after extended delays the drafting and designing force was organized and all hospital plans were studied and restudied and revised as occasion demanded. In justice to the draftsmen secured, it should be said that they have worked faithfully and have without hesitation put in many hours and days overtime. When one considers the fact that they are underpaid for this class of work to-day, every credit should be given them.

8. The problem of hospital construction comprehended (*a*) the enlargement of existing post hospitals to meet the demands of increased garrisons, especially at coast artillery posts and recruit depots; (*b*) the construction of hospitals at every National Army and National Guard camp and all other training camps; (*c*) the construction of hospitals for the embarkation camps; (*d*) construction of hospitals for miscellaneous military activities, such as arsenals, filling plants, proving grounds, depots, etc.; (*e*) the construction of new general hospitals; (*f*) debarkation hospitals; (*g*) and certain special hospitals which for purposes of administration are classed as general hospitals.

9. During the execution of this work considerable expansion took place. At the beginning 5 civilian employees were engaged in the work under the supervision of 1 officer who had other activities as well. There are now 18 officers and civilian employees engaged on the technical and administrative work of this branch. The velume of work done is much greater proportionately than the increase in personnel. In this year it has been possible to bring the construction branch in direct physical contact with the hospital division of the Surgeon General's Office, which has been a great step forward. If the Surgeon General's Office is to continue to prepare working drawings of desired construction, this consolidation should continue. The blueprinting plant is separated, and this should not be, but it is now not possible to consolidate further.

10. For the fiscal year which ended June 30, 1918, the Congress appropriated $750,000 for construction and repair of hospitals at military posts already established and occupied, and gave authority to use, from the above sum, $25,000 to erect a new hospital at Fort Ward, Wash.; $100,000 to build a modern hospital at Schofield Barracks, Hawaii; $90,000 to enlarge the Walter Reed General Hospital; $90,000 to erect a modern hospital at Fort McPherson, Ga.; and $60,000 to build an officers' infirmary for the general hospital, Fort Bayard, N. Mex. The hospitals at military posts have been kept in repair, but, owing to the necessity for funds to use in constructing temporary hospital buildings rendered necessary on account of the war, it was impossible to construct the new buildings authorized by Congress, and the funds were used to construct temporary buildings; therefore it will be necessary for Congress to renew the amounts stated before the above-mentioned hospitals can be constructed. Congress also appropriated $25,000 for the current fiscal year for construction and repair of quarters for hospital stewards at military posts already established and occupied. These funds have been used for the purpose for which they were authorized, and the quarters are in fairly good condition so far as repairs are concerned, but some general hospitals and some military posts are in much need of such quarters. Deficiency appropriations for 1918 have been approved by Congress for construction and repair of hospitals, as follows:

Oct. 6, 1917	$35,000,000.00
Mar. 28, 1918	19,654,300.00
July 8, 1918	13,936,554.66
Total	68,590,854.66

The last deficiency estimate presented to Congress for $13,000,000, while not gaining approval till after the close of the fiscal year, will nevertheless be used for projects conceived and in some cases completed prior to the close of the fiscal year. This money will be available until December 31, 1918.

11. Many hospitals as they now stand have been added to several times since they were originally hastily planned. It seems quite likely that this unsatisfactory practice must continue, and may even be extended to the majority of the camp and cantonment hospitals, as many camps will probably be increased in size. It was necessary last winter to increase the size of all the camp and cantonment hospitals, but this increase was not due to an increase in the size of the camps. It was rendered necessary because the hospitals as authorized were not quite large enough to care for the percentage of men which it was found advisable to treat and segregate away from their organizations.

12. In addition to hospital construction proper a regimental infirmary was erected for each regiment or separate unit of similar size. Also one and sometimes two large dental infirmaries were built in each camp and cantonment. It has also been necessary to construct in the camps at the ports of embarkation hospital space in excess of that usually necessary at other camps. Eight per cent of troops passing through New York pass through the embarkation hospitals there. These are not to be considered with general hospitals.

13. Aside from the construction of hospitals, regimental infirmaries, dental infirmaries, quarantine camps, etc., all associated with troops in post or in camp, it has been necessary to construct from this fund other hospitals for the care of the sick who may not properly be cared for at existing post hospitals of the United States or at the camp base hospitals. These cases may be called "general" cases, and require what may be called general-hospital beds. Therefore, for the care of the cases that should no longer be retained in camp base hospitals and for the care of those returning from overseas, additional general hospitals were constructed. This work is still going on, and it has been so planned that each month enough general-hospital beds will be added to keep abreast with the incidence of that class of sick. It is planned to establish in each draft district one or more of these hospitals as occasion demands. In such as may be located appropriately reconstruction facilities are being provided.

IV. MEDICAL AND HOSPITAL SUPPLIES.

1. GENERAL.

At the declaration of war the department was confronted with the task of furnishing supplies and equipment vastly in excess of the requirements in time of peace. The stock of supplies on hand was sufficient to meet the needs of an Army of approximately 300,000. Estimates had to be prepared, purchases authorized, a distribution system devised, additional warehouses secured, depots established, and a force of sufficient magnitude to handle the situation secured.

In the Army appropriation act for the fiscal year 1918, approved May 12, 1917, $1,000,000 were appropriated for the Medical Department. The act of June 15, 1917, appropriated $29,780,000 additional. These sums proving inadequate, an appropriation of $100,000,000 was made October 6, 1917, and a further deficiency appropriation of $33,000,000 was made July 8, 1918.

On July 21, 1917, the sections of the office handling disbursements, administrative audit of vouchers, and property returns were consolidated into the finance and supply division. This division is charged with all matters pertaining to the procurement and issue of Medical Department supplies and the administrative audit of all vouchers in payment therefor, as well as for services rendered the department.

On July 1, 1917, the department had in operation in the United States medical-supply depots at New York City, Washington, St. Louis, San Antonio, and San Francisco. Four new depots at Atlanta, Chicago, Louisville, and Philadelphia were being stocked. It was early seen that with the establishment of the various camps would come the need for the development at each of a local depot equipped to meet all the needs of the camp, regimental organizations, sanitary trains, and the base hospital. It became necessary to find trained personnel to purchase, inspect, supervise transportation, issue, and account for the varied supplies so necessary for the proper care and treatment of the sick. Additional officers and personnel were required for the distributing depots. Officers for the various camp medical-supply depots had to be found, commissioned, and transported to the scene of their future activities before the arrival of the supplies, which in turn had to reach the camp before the arrival of troops. In many instances supplies arrived at the camps before buildings were ready to receive them. They were stored wherever space could be secured in farm buildings, in the open, or under canvas. Every medical-supply officer of the camps had to adapt himself to existing conditions and remain on duty not infrequently the whole 24 hours if need be, for he was the only representative of the Medical Department present to care for the supplies. With the arrival of troops, enlisted personnel were detailed to duty in the improvised depots, and conditions improved. As time passed, the needed storehouses were completed and the camp medical-supply depots were stocked and in full operation.

The Sanitary Corps was authorized June 30, 1917, to provide technical and nonmedical personnel for the various activities of the Medical Department. This corps made it possible to obtain officers for duty as supply officers, purchasing agents, X-ray technicians, automobile and accounting experts, and provided for the development of an adequate personnel for the supply service. Sixteen officers of the Medical Corps have been on duty with the supply service; 331 officers of the Sanitary Corps were commissioned for duty with that service, and 1,471 enlisted men are on duty in the various supply depots at home and abroad, of which 425 are with special units. The best obtainable men have been selected for this service, and the greatest care taken to eliminate the unfit to the end that those selected may be able to endure the hardships and vicissitudes of active campaign.

Training schools have been established and every effort made to insure that each officer, noncommissioned officer, and private is fully qualified before he is assigned to duty. Of the 331 officers of the Sanitary Corps now engaged in supply work 288 have risen through the various grades of private and noncommissioned officer to officer.

A surgical-instrument repair unit, consisting of one officer and 89 enlisted men, equipped with all the machinery and material necessary to repair and make, if necessary, any of the instruments in use, is now in France.

A motor-ambulance assembly unit, composed of 3 officers and 68 enlisted men who had been carefully selected from all of the important automobile plants in the United States, was sent to France in February. This was followed by an accounting and auditing unit of the Medical Department, which has 6 officers and 135 enlisted men, which has been intrusted with the finance and property accountability of the Medical Department overseas. Later an optical shop, with 2 officers and 25 enlisted men, and still other lesser units were sent, making a total as above. Additional men are being supplied from time to time.

2. SUPPLY DEPOTS.

The requirements for storage space for the reception and issue of supplies increased so rapidly that new buildings had to be added from time to time. By the end of the year storage space available in the depots was as follows:

	Square feet.
Atlanta, Ga	146,000
Chicago, Ill	177,000
Louisville, Ky	45,000
New York City	185,000
Philadelphia, Pa	192,000
St. Louis, Mo	347,000
San Antonio, Tex	48,000
San Francisco, Cal	112,000
Washington, D. C	270,000
Total	1,522,000

There are also in operation overseas embarkation warehouses at New York City and Newport News, Va. The former is on Pier 45, North River, and has 80,000 square feet of floor space; the latter is in Government-owned buildings having 50,000 square feet of floor space.

During the period November 25, 1917, to June 30, 1918, there were shipped to the expeditionary forces in France 31,099 tons of Medical Department supplies, occupying a total space of 3,771,810 cubic feet.

All the depots were satisfactorily housed by the end of the year except San Antonio, where the supplies still remain stored in a number of small buildings scattered over a large area, making administration and the prompt handling of and efficient accounting for supplies at that depot very difficult. The St. Louis depot is also in buildings scattered over a wide area and its proper coordination rendered difficult thereby.

The New York depot has been used as a procurement depot for post supplies; the field medical supply depot at Washington, for the procurement of field supplies and for the assembling of field units; and the depot at St. Louis for the procurement of veterinary supplies and for the assembling of veterinary field units. In addition to the purchase and assembling of veterinary equipment, the St. Louis depot has been utilized as the distributing depot for post and field supplies to the States of Oklahoma, Colorado, Kansas, Missouri, Arkansas, Louisiana, and Mississippi. The Chicago depot distributes supplies to the States of Montana, Wyoming, North and South Dakota, Michigan, Minnesota, Iowa, Wisconsin, Indiana, Ohio, and Kentucky. The Philadelphia depot supplies the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Maryland, Delaware, and Virginia. The Atlanta depot distributes supplies to the troops stationed in North Carolina, South Carolina, Georgia, Florida, Alabama, and Tennessee. The depot at San Antonio distributes supplies to Texas, New Mexico, Arizona. The depot at San Francisco is the distributing point for the States west of the Rocky Mountains, including Idaho, Nevada, and Utah. The Louisville depot handles only motor ambulances, motorcycles, spare parts, trailers, and miscellaneous spare parts for all such equipment for all stations in the United States.

The subsidiary supply depots established at all camps and cantonments have met the requirements of the service satisfactorily and have been efficiently operated, although considerable confusion existed during the first few months. Considering the congestion of the railway traffic, the confusion incident to the rapid expansion of the hospitalization at camps, and the lack of knowledge of military matters, methods and regulations on the part of medical officers and enlisted personnel, the delivery of medical supplies to all organizations was efficiently performed as could have been expected during the trying period immediately following the mobilization of troops. All these depots are now completely equipped and no difficulty is anticipated in keeping them supplied during the coming year.

3. MEDICINES.

By judicious methods of procurement, an ample supply of drugs has been obtained with the exception of a few alkoloid substances, such as atropine and homatropine, of which the supply is limited and difficult to secure. The importation of digitalis from abroad has been superseded by domestic production and a standardized tincture has been prepared through the courtesy and efforts of Prof. F. J. Wulling, College of Pharmacy, University of Minnesota.

The production of arsphenamine has been improved and increased until the supply is nearly sufficient to meet the demands. The toxicity of the domestic product has been so reduced that the best grades equal or excel the German salvarsan imported prior to 1914.

4. BLANK FORMS.

As was expected from the great expansion of the Medical Department and from the inexperience of the personnel, enormous quantities of blank forms have been used. Resort to private printers was necessary to meet a large part of this demand. The increased range of activities of the Medical Department has required the adoption of a few additional forms, but, as a whole, the standard forms in use have proved satisfactory and sufficient to meet the requirements. The field medical supply depot in Washington is the distributing depot for these blank forms. Shipments are made in bulk to the main distributing depots and to the camp medical supply depots. From these distribution is made to the hospitals and other units in their respective areas.

5. SURGICAL DRESSINGS.

During the early part of the year contracts for vast quantities of supplies were entered into with the existing dressing manufacturers. As time passed it became necessary, in order to maintain the supply, for the Government to procure the gray goods from the mills and furnish to the dressing manufacturers such quantities as they could handle and have the remainder bleached and finished wherever possible. During the year 28,776,000 yards of absorbant gauze, 34,000,000 sublimated gauze packets, 60,119,200 compressed bandages, 62,746,127 roller bandages, 8,423,580 first-aid packets, 10,000,270 individual packets, and 600,000 shell-wound packets were produced and delivered.

Arrangements for the preparation of large quantities of surgical dressings have been made with the American National Red Cross. The Medical Department furnishes all the materials and the various chapters of the Red Cross make up the dressings. Many thousands of such dressings have been sent abroad.

The Red Cross has also rendered valuable service by making such articles as nightshirts, operating gowns, pajamas, etc., from materials furnished by the Medical Department.

6. SURGICAL INSTRUMENTS.

The procurement of a sufficient number of surgical instruments has been the most difficult of the supply problems. Since the bulk of all surgical instruments in use in the United States was imported either from Germany or from England before the war and since this source of supply was closed by the war, it became necessary to call upon domestic surgical instrument manufacturers for greatly increased production, and to develop new sources of supply. As a result of the campaign for this development, surgical needles, the entire supply of which was formerly imported, are now obtained in sufficient quantities and of satisfactory quality from domestic sources. Toolmakers, cutlery manufacturers, and jewelers are contributing to increase the supply of forged and finished instruments. Standardization of surgical instruments supplied to the Army has made possible this increased production. While the demands for the coming year will undoubtedly be many times greater than those of the year just closed, new sources of supply in sufficient numbers have been developed to insure an adequate quantity of all needed instruments. Organizations and manufacturers which have never made surgical instruments have responded to the call and are to-day making better instruments than those formerly imported from Germany.

7. WARD EQUIPMENT.

During the year 251,628 bedsteads and full equipment therefor were procured and distributed. Thirty-five base hospitals were established at camps and the equipment for 32 additional was sent abroad. The major portion of the equipment for these 32 hospitals sent abroad was supplied by the Red Cross. Also 26 general and other large hospitals were equipped at home.

Pursuant to cable requests from overseas, the equipment of base hospitals now sent abroad has been increased to accommodate 1,000 patients with the crisis expansion of an additional 1,000. The complete equipment of one such hospital, including steam sterilizer and portable disinfector, weighs 150 tons and occupies over 30,000 cubic feet of space. Evacuation hospitals have likewise been increased to a capacity of 1,000 patients, and the equipment of 10 such has been forwarded overseas. Fifteen evacuation hospitals equipped according to Manual for the Medical Department were also sent in the early part of the year.

8. GAS MASKS.

By direction of the Secretary of War, under date of May 16, 1917, the development and production of gas masks was made a function of the Medical Department. It became necessary at once to provide an organization of trained personnel for this special purpose. This organization was developed as a part of the Sanitary Corps. At the close of the year it consisted of 186 commissioned officers and 1,199 enlisted men. To it was assigned the duty of supplying not only gas masks for both men and horses, but chemical sprayers for cleaning trenches, oxygen apparatus for resuscitating the wounded, trench fans, and gas samplers. The service was divided into the field supply section, overseas section, and training section.

The training section has been transferred to the control of the Engineer Corps. The duties of this section were to advise and help the division staff officers in the handling of masks, the handling of gas used for training purposes, the disinfection of masks used for training purposes, and the training of officers in the use of gas-sampling apparatus, gas detectors, and other means of defense against gas.

The field supply section of the gas-defense service is roughly divided into the technical division, the procurement division, the inspection division, and the controlling division. The duties of the field supply section have been the superintending of purchase, manufacture, and inspection of gas masks and similar appliances for the United States Army. A list of the articles which it supplies includes trench fans, chemical testing tubes, vacuum bottles, glass jars for making analysis of gas, weather vanes, special overalls and suits for protection against certain gases, special gloves for handling articles which may come in contact with dangerous chemicals, and a specially prepared paste which is rubbed on the body to protect it against various gases. It also provides supplies for the training camps, such as gas bombs, smoke boxes, and various articles for carrying on mimic gas warfare.

After the failure of many efforts to obtain a sufficiently rigid inspection to secure a high quality of production, it became necessary to establish a plant entirely under the control of the gas-defense service for assembling into completed masks the various parts produced by private manufacturers. On November 20, 1917, authority was obtained from the Secretary of War for the establishment of such a plant in Long Island City, N. Y. This plant is operated by the gas-defense service and at the present time has a total of 4,691 civilian employees.

The articles which this section supplies are not standard articles procurable in commercial markets, but are specially designed and manufactured or contracted for by the gas-defense service and assembled either in the gas-defense plant or in various plants under the direct supervision of the gas-defense service.

Since the gas-defense service was established, up to and including June 30, 1918, it has produced 262 specially impregnated suits of oiled clothing, 354 pairs of oiled gloves, 1,199 oxygen inhalators, 11,103 trench fans, 120,000 tubes sag paste, 154,094 horse masks, 502,898 extra canisters for gas masks. It has manufactured a total of 1,718,632 gas masks, of which 1,432,224 have been delivered to the quartermaster at the port of embarkation for shipment overseas. The balance have been used for experimental and training purposes in the United States.

9. MOTOR AMBULANCES.

A special organization has been developed for the purchase, production, inspection, and maintenance of motor ambulances, motorcycles, spare parts, and equipment. This work has been under the direction of automobile and business experts, and has included a directing officer in Washington, D. C.; a motor ambulance experimental station, Washington, D. C.; a motor ambulance supply depot, Louisville, Ky.; a motor ambulance assembly base, American Expeditionary Forces; and stations for inspection and testing ambulance chasses, ambulance bodies, spare parts trailer chasses and bodies, motorcycles, etc., at each plant in the United States where they have been produced.

In addition to the procurement, production, and inspection of motor ambulance equipment, a new design of knockdown ambulance body has been developed and put into production, the standard ambulance chassis has been improved in spring suspension, shock absorbers, starting of engine, driver's apron and windshield, draining of cooling system, radiator support, and several motor details. A special "spare parts A" equipment for each ambulance has been provided, and a "spare parts B" equipment, together with a special spare parts trailer, to be carried with each ambulance company, and designed to take care of all except major repairs and accidents in service. A book of "Information and Instructions" covering equipment, spare parts, repairs, and maintenance for United States standard motor ambulances and United States standard motorcycles in the service of the Medical Department, United States Army, has been compiled and distributed, which includes lists of all equipment, spare parts, etc., as well as directions for the inspection of ambulances by drivers and mechanics, and instructions for assembling, adjustment, and maintenance of each ambulance chassis unit. A supply, repair, and salvage depot has been established at Louisville, Ky., for the upkeep of ambulances and motorcycles in the United States.

Tentative drill regulations for the United States standard closed ambulance have been published and distributed.

Two types of litter carriers have been designed: (1) A hospital wheeled litter carrier, which is light in weight, cheap, easily knocked down and boxed for overseas shipment and readily assembled by inexpert mechanics. A special rest readily converts the carrier into a temporary operating table; (2) a field litter carrier, which enables two litter bearers to handle two wounded on litters, and which may be used in a trailer behind the standard motor ambulance.

10. RÖNTGENOLOGY.

When the United States entered the war two problems with regard to X-ray work presented themselves. One was to train a sufficient number of Röntgenologists and the other to furnish suitable apparatus in sufficient quantity.

The problem of training Röntgenologists was met by establishing nine different schools in as many cities, in charge of officers of the Medical Reserve Corps. Later the instruction work was concentrated at Cornell Medical College, in New York City, with two schools for preliminary instruction at the medical officers' training camps at Fort Oglethorpe and Fort Riley. About 500 officers of the Reserve Corps have been trained in these schools for duty as military Röntgenologists, most of whom are serving as such at military hospitals in this country or abroad. Based on French experience, it will be necessary to furnish at least 600 Röntgenologists for each 1,000,000 of troops. This will make it necessary to continue the courses of instruction as long as the war lasts.

It is also necessary to train enlisted men as X-ray manipulators to do the photographic and other routine work in X-ray laboratories. These are needed in the proportion of two to each Röntgenologist. A large number have now been trained.

The following new apparatus has been devised or adopted by the Medical Department during the past year:

(1) An X-ray table designed for use with both portable and stationary outfits and satisfactory for both Röntgenoscopic and Röntgenographic work. This table with the X-ray box and tube stand detached has also been adopted by the surgical division as an operating table for mobile surgical units.

(2) A bedside X-ray unit which makes it possible to do satisfactory X-ray work on any part of the body without removing the patient from his bed.

(3) A portable X-ray apparatus for use at forward hospitals and other places where there is no electric current. This apparatus consists of a specially modified Delco gas-electric set, which furnished alternating current to a high-tension transformer. For both this apparatus and the bedside unit Dr. Coolidge has devised a special radiator type of Coolidge tube which rectifies its own current, thus eliminating moving parts from the apparatus. A 50-foot cable makes it possible to place the engine at that distance from the X-ray table. The standard Army ambulance has been modified by removing the seats and making a few simple additions so as to carry the complete portable outfit and one bedside unit.

(4) A complete set of apparatus for localization of foreign bodies has been adopted. This contains instruments for the application of the following methods:

(*a*) Two-wire double tube-shift method.
(*b*) Parallax method.
(*c*) Tube-shift method with mechanical triangulation.
(*d*) Profondometer.
(*e*) Hirtz compass with accessory devices.
(*f*) Canula and trocar with harpoon.

A sufficient quantity of X-ray apparatus and supplies of all kinds has been shipped abroad for use of both stationary and mobile hospitals with the American Expeditionary Forces. X-ray apparatus has also been furnished in adequate quantity for military hospitals in the United States.

11. VACCINES AND BIOLOGICALS.

Triple typhoid vaccine for the entire military force has been furnished promptly and efficiently by the Army Medical School.

By agreement with the commercial biological producers the territorial limits of the United States were divided into districts and every producer given a definite area to supply with such products as he was best able to furnish. Smallpox vaccine was delivered to every camp and concentration point in ample quantity prior to the arrival of the first increment of the draft, and the stock has been replenished at intervals in time to meet the requirements of each succeeding increment of the draft. During the months of incidence of pneumonia and meningitis large quantities of antipneumococcic and antimeningitis serum were supplied. Part of this serum was obtained from the Rockefeller Institute, from the New York State Board of Health, and from the New York City Board of Health. The sera produced by these scientific bodies was considered a standard, and efforts to induce the biological producers to raise their standards to conform to the same requirements were successful. Before the end of the year, the hygienic laboratory of the Public Health Service had arranged to examine samples of all lots of sera and other biological products before they were placed on the market, whether for military or civilian use.

During the epidemic of pneumonia and meningitis the various biological producers were invited to send representatives to the camps with a view to obtaining and incorporating in the immunization of their horses such new strains as might be found. A few strains which do not conform to known types were found and have been utilized in the preparation of immune serum. With this cooperation between the Army, Public Health Service, and biological producers standardized sera are now available for civilian as well as military use.

V. DIVISION OF LABORATORIES AND INFECTIOUS DISEASES.

This division was organized in June, 1917, and was divided into sections, as follows: Section of laboratories and infectious diseases, exclusive of venereal diseases; section of combating venereal diseases; and section of urology and dermatology.

The reports of these three sections are presented separately.

1. THE SECTION OF LABORATORIES AND INFECTIOUS DISEASES.

To this section was delegated the task of furnishing trained personnel, supervising and directing the laboratory service of the Medical Department, and instituting measures for the prevention and control of infectious diseases. The problem of infectious diseases, particularly pneumonia and meningitis, has necessitated numerous extensive investigations by groups of experienced epidemiologists, bacteriologists, and pathologists. The result of these investigations has materially added to our knowledge of the methods of combating these diseases.

A laboratory manual has been compiled for the use of officers, which describes standard methods of laboratory procedure. The rapid advances in methods of laboratory diagnosis during the publication of this work and the appearance of new problems has necessitated an immediate revision, which is now well under way.

At the beginning of the activities the laboratories of the Army capable of doing comprehensive work were six, viz, the laboratories of the Central, Southern, Philippine, and Hawaiian Departments, Letterman General Hospital, and the Army Medical School, with an officer personnel of about 12. At the present time there are 110 completely equipped laboratories in the United States capable of doing all kinds of laboratory work independently, and the personnel in all laboratories and under instruction July 1 was about 1,000.

The Rockefeller Institute in New York City has been organized under the director as an Army laboratory and training school. A full report of the activities of this institution is presented in another section of this report.

A school for laboratory officers, started at the Central Department laboratory, has been transferred to buildings at Yale University, made available through the generosity of Yale University. This school was necessitated by the inadequate supply of medical officers trained in laboratory work, and by the demand for large numbers of enlisted men trained in technical work for laboratories of the enlarged Army. Yale University has further helped this school by the building of a temporary structure at a cost of over $35,000.

The Army Medical School has also established classes for training officers and enlisted men, so that at the present time three schools of instruction for laboratory men are operating under this division.

It has been necessary to take scientific men and perfect them in laboratory methods and commission them in the Sanitary Corps to replace medical officers in our laboratories. This has been one function of the Army Medical and Yale Army laboratory schools, and the present shortage of medical officers with any training whatsoever along laboratory lines will necessitate the training of considerable numbers of nonmedical men for this purpose.

Women physicians are being placed on duty as contract surgeons, and with the aid of the medical division of the National Research Council 10 schools have been established and courses standardized for the training of nonmedical women as laboratory technicians. One hundred and twenty-five trained women technicians are now (July 1) on duty in the laboratories in this country, replacing men for overseas service.

It has been found necessary in all camps to more than double the laboratory capacity in order to handle the large amount of work necessitated by the occurrence of infectious diseases. Large numbers of examinations for meningococcus, diphtheria, and other carriers have been made, and a great deal of investigation in epidemiology has been necessitated by the considerable numbers of cases of pneumonia, meningitis, and infections by the hemolytic streptococcus. Reports on diseases of special importance follows in separate paragraphs, as well as tabulations, indicating the amount of work done in the various laboratories.

Detailed tabulations of the work of all of the Army laboratories are available only for the months from February to June (inclusive) of the past year. Even for this period it is hardly profitable to present a detailed consolidated report of the number of various examinations carried out. It is of interest, however, in order to give some indication of the amount of work done in the laboratories of the camp base hospitals, to present the following table. In this a few of the more important types of examination are arbitrarily selected, and the average number of each performed per month in each of six of the camp base hospital laboratories is shown:

TABLE No. 154.—*Base hospital laboratory examination during the months February to June (inclusive), 1918.*

	Jackson.	Taylor.	Dodge.	Pike.	Travis.	Lewis.
Urinalyses	2,670	3,334	2,389	1,181	2,675	1,244
Blood counts	800	(1)	1,199	422	1,314	465
Malaria	619	....	40	183	108	....
Blood cultures	89	....	50	64	103	97
Sputum for tuberculosis	451	396	696	365	607	397
Urethral smears	228	....	860	....	....	353
Cultures for Klebs-Loeffler	13	....	4,681	4,017	....	789
Cultures for meningococcus	3,171	....	1,950	951	12,431	2,115
Typing of pneumococcus	103	42	38	119	731	67
Feces for ova	3,638	3,742	743	56	168	452
Wassermanns	1,422	407	623	276	583	398

[1] Report tabulated in a manner that does not permit calculation of this figure in all cases indicated.

The amount and nature of the laboratory work may also be gauged by the following complete tabulation of all the examinations made in Army laboratories in the United States for one month, March, 1918.

TABLE No. 155.—*Tabulation of laboratory examinations for the month of March, 1918 (57 laboratories).*

Examinations.	Number.	Examinations.	Number.
Urinalysis	58,877	Renal function	611
Blood counts	16,735	Wasserman, blood	14,689
Malaria	1,907	Wasserman, cerebrospinal fluid	160
Blood grouping	53	Complement fixation, gonococcus	127
Widals	70	Complement fixation, glanders	394
Gastric contents	801	Miscellaneous cultures	1,298
Feces, for ova	32,453	Water, bacteriological	832
Sputum, for tuberculosis	8,763	Milk, bacteriological	872
Darkfield examinations	714	Foods, bacteriological	77
Urethral smears	5,748	Autopsies	271
Miscellaneous smears	1,130	Histological examinations	492
Cerebrospinal fluid, cell counts	1,146	Gross specimens, preserved	11
Cerebrospinal fluid, colloidal gold	31	Special chemical examinations	47
Blood cultures	1,377	Miscellaneous examinations	2,887
Pneumococcus typing	2,607	Autogenous vaccines prepared	167
Nasopharyngeal cultures, Klebs Loeffler	41,313	Typhoid vaccinations given	9,275
Nasopharyngeal cultures, meningococcus	75,204	Smallpox vaccinations	2,796
Nasopharyngeal cultures, streptococcus	2,922	Serum treatments given	254
Pleural fluids	915	Rabies treatments	14
Urine cultures	1,943	Shick tests	1,215
Catheterized urine	33		
Urine, pneumococcus precipitin	141	Total examinations	293,430
Feces, cultures	4,475		

In addition to the work tabulated, certain special studies have been made at some of the camp laboratories. Among these may be mentioned the study of the bacteriology of the epidemic simulating influenza, a mosquito survey at Camp Custer, malarial surveys at Camps Dix and Jackson, and meningococcus surveys at Camps Jackson and Travis.

2. ROCKEFELLER INSTITUTE. (UNITED STATES ARMY AUXILIARY LABORATORY NO. 1.)

During the past year the Rockefeller Institute offered several courses of instruction for Army officers and enlisted men; has carried out certain investigations at the request of the Surgeon General; and has furnished certain sera and vaccines for the use of the Army.

At the war demonstration hospital at the Rockefeller Institute, which was constructed for this especial purpose, courses lasting two weeks were given twice a month, designed to teach the recent advances in war-wound surgery, and especially the art of applying the Carrel-Dakin treatment. This course has been given to 25 classes, attended by 436 medical officers of the Army under the direction of the surgical division. In addition special individual instruction has been given to 20 medical officers and 25 enlisted men.

In addition to this teaching, the laboratories of the war demonstration hospital have been engaged upon the investigations of particular subjects assigned by the Surgeon General, such as the action of other antiseptic drugs than sodium hypochlorite, the elucidation of the principles of the action of the antiseptics, and the application of the Carrel-Dakin method to the treatment of empyema.

Fundamental training in bacteriology and immunology has been provided in a course in bacteriology and serology, covering four weeks of intensive work, repeated once a month. These classes have been attended by 280 officers and 37 enlisted men.

Recently a course in clinical chemistry for medical diagnosis has been begun, each class continuing about six weeks. Seven officers and 52 enlisted men have taken this course.

For the purpose of instruction in the methods of pneumonia diagnosis and treatment and in the use of curative serum effective against the Type I pneumococcus, 27 medical officers have been sent to the Rockefeller Hospital and have served there as internes from periods of from six weeks to several months. This course has been con ducted under the direction of the division of internal medicine.

Four sera have been produced for the Army and Navy at the Rockefeller Institute in the following quantities:

	Liters.
Antimeningococcic serum	528
Antipneumococcic serum	286
Antidysenteric serum	44
Antigas-gangrene serum	150

In addition, 50,000 doses of antipneumococcus vaccine were prepared and used in the study of prophylactic vaccination against pneumonia at Camp Upton.

The institute has furnished assistance to the Army on several occasions in dealing with the problem of meningococcus carriers. Experiments have been conducted upon improved methods of treating these carriers and freeing them from meningococci. Ten such carriers from the Army have been treated in the Rockefeller Hospital and discharged as cured.

At Camp Funston studies upon the vaccination against epidemic meningitis were carried out by the Rockefeller Institute. A report of this study has already been made to the Surgeon General.

3. THE LABORATORY DIVISION OF THE AMERICAN EXPEDITIONARY FORCES.

In addition to the conduct of the work in camps in this country, the department of laboratories and of infectious diseases has cooperated with the chief of the division of laboratories of the American Expeditionary Forces. A statement concerning the laboratory work in France, and especially the very important investigations of trench fever, must await the arrival of the official report.

4. LABORATORY ACTIVITIES ASSOCIATED WITH THE MEDICAL SECTION—CHEMICAL WARFARE SERVICE.

Bacteriological and pathological investigations on the action of poisonous gases undertaken under the auspices of the Bureau of Mines over a year ago have been developed during this period into a division of the medical section of the chemical warfare service.

This work has been under the direction of several competent pathologists.

The studies have been conducted at several stations, including the American University and the Brady Laboratory of Yale University. The effects of many gases both in the gas chamber and under field conditions have been determined and more detailed histopathologic, bacteriologic, and serologic problems which may indicate methods of therapy are under investigation.

Eight different gases have been studied and reports of these investigations well illustrated with gross and microscopic drawings as well as several preliminary reports are rapidly approaching completion for publication.

5. PNEUMONIA AND EMPYEMA.

Pneumonia, in part secondary to measles, in part primary, has been the cause of about 65 per cent of the deaths in the Army in this country during the calendar year of 1917. Especial attention has therefore been directed to the study of this disease.

The isolation and typing of pneumococci from the sputum of patients with pneumonia either by the mouse or by Avery's method, or by both, has been made a routine procedure in the Army laboratories.

Following the institution of pneumococcus typing, the use of antipneumococcic serum in the pneumonias that are due to the Type I pneumococcus was commenced, and the use of this serum is now a routine measure for these pneumonias.

At Camp Upton almost half the Seventy-seventh Division was inoculated with a saline pneumococcus vaccine containing Types I, II, and III. During the 10 weeks that elapsed between the completion of this vaccination and the departure of the troops not a single instance of pneumonia of these three types occurred among the vaccinated men, while the incidence among the unvaccinated was higher than during the corresponding period preceding the vaccination. This has been deemed a sufficiently strong confirmation of Lister's findings in South Africa, to warrant an extension of the use of this prophylactic measure.

A commission was sent in February by the Surgeon General to Texas to study pneumonia from the clinical, bacteriological, and pathological aspects. Among other results the clinical and pathological characteristics of the pneumonia associated with the streptococcus hæmolyticus were analyzed by this commission. The pathology of this form of pneumonia for which the name "interstitial broncho-pneumonia" was chosen was described and the association of the hæmolytic streptococcus with this pathologic condition was demonstrated.

A technique has been elaborated for the isolation and identification of the streptococcus hæmolyticus from the sputum, nasopharynx, or other source. The recognition of the importance of this organism as an etiologic factor in one type of pneumonia, and that a very fatal one, is an important contribution of the past year.

In conjunction with the Surgical Division a commission was organized and sent to Camp Lee to study empyema, which has constituted such an important complication of pneumonia, especially in those pneumonias associated with the streptococcus. Metabolic studies were made by this commission indicating the necessity for a calorically high diet for these patients. Bacteriological and pathological studies were made in conjunction with the surgical investigations.

The apparent influence of measles in predisposing to infection with streptococcus hemolyticus, and the importance of this organism in inducing the complications of measles has been brought to light in studies from several of the Army laboratories. This has stimulated the making of streptococcus surveys by nasopharyngeal culture in the troops at some of the camps, to determine the incidence of this organism and its tendency to spread. It has also led to the devising and institution of methods for the isolation of patients with measles who have this organism in the nasopharynx, and for their separation from those with clean throats.

Investigations are at present in progress upon the nature of the virus of measles and upon measles prophylaxis, upon the efficiency of masking of cubicles for the prevention of respiratory infections and upon the proper pattern for an effective mask, upon the biology and the seasonal prevalence and virulence of the hemolytic streptococcus, and upon protective vaccination against pneumonia.

A board of medical officers was appointed by order of the Secretary of War, under date of May 20, 1918, for the purpose of making an investigation as to the nature, causes, prevention, and treatment of pneumonia and its complications in the various camps within the limitations of the United States, and to report from time to time to the Surgeon General of the Army. Three meetings were held previous to June 30.

One of these was in conference with a group of pediatricians, for the purpose of considering the management of measles and its sequelæ as they affect the military service.

This board has likewise reviewed the data thus far collected on the subject of pneumonia and its sequelæ, by various divisions of the Surgeon General's Office. It has considered methods for the earlier diagnosis and isolation of pneumonia in the camps and hospitals; the selection and detailing of small groups for the special study of pneumonia in these camps where it becomes especially prevalent; and the continuation of prophylactic vaccination against pneumonia.

6. ANTHRAX.

In March, 1918, a soldier developed anthrax on the neck, while on the transport en route to Europe. The lesion was in the shaving area. Examination of 15 shaving brushes from among the troops on this transport resulted in the finding of anthrax spores in all of the first six brushes examined.

Following this first instance, 14 men have been reported from overseas, with anthrax in the shaving area of the face or neck. All but three of them developed the condition while on the transport. Of the 15 patients, 5 died. Shaving brushes from the organizations of three of these men showed on bacteriological examination, the presence of anthrax spores.

In this country the first instance among the troops occurred at Camp Taylor in April, and up to June 30, 20 individuals in the Army in the United States had developed the condition, in every case the lesion being on the face or neck. Among these 20 patients there has been 1 fatality.

Upon receipt of the report from overseas, measures were taken to secure an examination of the shaving brush, soap, talcum powder, and other shaving accessories, from both the patient and others of his organization. Methods for the disinfection of shaving brushes were tested, that finally adopted being four hours' immersion in a formalin bath at 110° F. A circular calling attention to the necessity for the disinfection of shaving brushes, and outlining the adequate methods, was distributed to all commands. Subsequently, the entire manufacture of shaving brushes was investigated at the instance of this office, by the Public Health Service, and a list of manufacturers prepared, which included those who provided for adequate sterilization of their product. This list was distributed to all commands in order that unnecessary disinfection of brushes might be avoided.

In addition the Public Health Service of the United States has added an amendment (No. 6) to the interstate quarantine regulations of 1916, to prohibit the interstate transportation of shaving or lather brushes manufactured under insanitary conditions, and including anthrax among diseases regarded as contagious and infectious, for the purpose of interstate quarantine.

The statistics of the United States Public Health Service show an increase in the incidence of reported anthrax in the United States during the past few years. Thus, there were in 1915, 45 cases; in 1916, 106 cases; in 1917, 205 cases. It is not necessarily to be inferred, therefore, that the incidence of this condition is unduly high in the Army.

7. GAS GANGRENE.

In June, 1917, the discovery, at the Rockefeller Institute, of a true toxin for *B. welchii* (*perfringens*) was announced. This toxin upon injection into laboratory animals and horses, gave rise to a potent antitoxin. Several horses were placed under immunization at once, and in December the application of this serum to the treatment of gas gangrene was commenced in France. Before going to the British front the toxin, the antitoxin, and the protective power of the latter were demonstrated in London to the British Royal Army Medical Corps, and as a result large scale production of antitoxin was at once begun in England.

Subsequently it was decided by the laboratory council of the Central Medical Department, American Expeditionary Forces, that the gas gangrene serum might better be applied prophylactically, and in conjunction with tetanus antitoxin. Further, the work of French investigators had shown that gas gangrene is not caused exclusively by *B. welchii*, but that the Vibrion septique (*B. edematis maligni*) is a frequent complicating factor. This organism also produces a true toxin. It was therefore planned to produce as rapidly as possible a double serum, and ultimately a triple serum, tetanus-welch-septique, these combinations to replace at the earliest possible time the tetanus prophylactic injections now given to the wounded. Facilities for this production being lacking in France the immunization of tetanus immune horses with the toxins of *B. welchii* and Vibrion septique was initiated in the United States.

Quantity yields of the double serum (tetanus-welch) are already beginning to be secured (September, 1918), and in a short time the routine prophylactic antitetanus injections of wounded men will begin to be replaced by the double-serum prophylaxis. By the winter of 1918–19 the triple serum should be in production in large quantities. Experiments in prophylaxis have yielded striking results, and the outcome of the effect of the large scale application of the combined sera on the incidence of gas gangrene may be awaited with interest.

8. SECTION OF UROLOGY AND DERMATOLOGY.

In the experience of the European armies venereal diseases became so prevalent as to cause many men to become ineffective. With the idea of using all aids in the prevention of venereal diseases and in applying modern scientific methods to the cure of such cases as should occur, the Surgeon General requested a committee of men versed in the department of genitourinary diseases and syphilis to act as advisers to the chief of the division. One member of the committee remains on duty in the Surgeon General's office continually and the entire committee meets for a discussion of new phases of the work as they present themselves.

In addition to the Manual of Treatment, the committee has sent out at various times a number of circulars to medical officers in camps and posts giving advice, suggestions, and instruction in relation to various topics in connection with venereal diseases. Special inspection trips have been made by members of the committee from time to time as emergencies arose, and in the early summer every cantonment in the country was inspected by a member of the committee to learn from personal knowledge the actual conditions in the genitourinary and venereal disease sections of the cantonments.

The first task of the committee on its organization was to prepare a program of attack against venereal diseases, one member being placed in charge of the department of prevention and the department of treatment being undertaken by the committee as a whole. In order to attempt to standardize the treatment of venereal diseases the committee prepared a manual for the use of all medical officers describing diagnosis and treatment in a brief manner.

The next task of the committee was to select the personnel to take charge of the venereal work in the camps. The applications of men joining the medical service were looked over, the qualifications reviewed, and the men classified and graded according to experience and professional standing. In assigning the men to duty it was endeavored to send one experienced genitourinary man and one or more younger men as assistants to every base hospital and every cantonment. In the base hospitals the urological surgery, venereal diseases, dermatology, and syphilis were combined in one department under one chief.

As the number of men with adequate training was found to be insufficient for filling all the positions, it was found to be desirable to afford an opportunity for the postgraduate instruction of younger men who elected to work in the genitourinary section, in urology and venereal diseases, syphilis, and dermatology, and to that end postgraduate schools were established for medical officers at the postgraduate school in New York at Columbia University, in Boston in connection with the Harvard Medical School, and in St. Louis. Later on, these schools were discontinued and all postgraduate courses in urology and venereal diseases were instituted at Fort Oglethorpe, so that men entering the service could get their military training and instruction in urology at the same time.

While gonorrhea and syphilis form the large preponderance of the cases in the cantonments, there are always a fair number of cases requiring experts in urology and dermatology, and an important part of the duty of the committee consists in supplying medical officers trained to genitourinary and venereal work to the cantonments as the Army increases in size. The volume of work in this line increased so much that it was necessary to assign a personnel officer to this branch of the committee's activities.

Facilities were provided for the prompt application of venereal prophylaxis and punishment by court-martial for delinquents was insisted upon. The results are apparently satisfactory.

In order to facilitate the treatment of venereal diseases by the medical officers and the military instruction by the line officers, development battalions were formed in which patients are treated in venereal infirmaries.

9. VENEREAL DISEASE CONTROL.

An active propaganda for the prevention of venereal diseases in the Army was first initiated by this office in January, 1909. As a historical review it is interesting to note the following quotations from the reports of that period:

> The magnitude of the evil and the large loss from inefficiency in addition to humanitarian considerations have induced the military authorities of a number of military posts to take earnest steps to check the spread of these infections. Such steps have been the instruction of soldiers by lectures as to the danger of venereal diseases and the healthiness of continence; periodical inspections to detect and subject to medical observation and treatment those found diseased; the withdrawal of passes to be

absent from the post of such; and the issue of preventive medicines for local application to such as will not be restrained by considerations of morality or prudence from exposure. These antiseptic applications are given only upon the personal request of individuals. If such steps were taken universally throughout the Army and a campaign of education instituted which should reach each recruit from his admission to the service, it is believed that the evil record of the American Army might be greatly bettered.

This rather brief introduction of the campaign was followed by discussions of considerable length which appear in the Surgeon General's report of 1910. A partial quotation is as follows:

The venereal peril has come to outweigh in importance any other sanitary question which now confronts the Army, and neither our national optimism nor the Anglo-Saxon disposition to ignore a subject which is offensive to public prudery can longer excuse a frank and honest confrontation of the problem. There is no reason to think that these diseases are beyond the reach of preventive medicine any more than other contagious diseases and their immunity from restriction must be attributed to the public disinclination to discuss them and legislate concerning them. It is now believed by most sociologists as well as sanitarians that the evil being primarily a social one can only be reached by a propaganda of public discussion and education, and that education in sexual matters and in the danger of venereal diseases should begin with the young and be carried on by means of all the agencies of popular enlightenment. A number of State and municipal health authorities as well as private associations are now publishing and distributing literature on this subject. It is believed that the War Department can not do better than adopt this general attitude and many of these methods, including a philosophical indifference to criticism on the part of self-constituted censors of the public morals whose susceptibilities are offended by a public discussion of these questions.

This office, on the 25th of January, 1909, called the attention of medical officers throughout the Army by circular letter to the importance of making a vigorous and sustained effort to prevent the spread of these diseases.

Reports since the Spanish-American War show a steady and progressive increase in this class of disease, so that the admission rate, which was 84.59 per 1,000 in 1897, has now reached the enormous figure of 196.99 per 1,000. These figures are out of all proportion to those which obtain in the European armies, the rates for the latter being, according to the latest obtainable information:

British (at home 68.4)	75.8
Austro-Hungarian	54.2
French (at home 27.8)	34.8
Prussian	18.7
Bavarian	15.2

Among the measures which have been found most successful in other services in controlling this disease have been the following:

(1) The organization of soldiers' clubs, canteens, etc., where enlisted men can find amusement and recreation sufficiently attractive to keep them at home and away from vile resorts.

(2) The formation of temperance associations among the enlisted men, the association of intemperance and venereal indulgence being well understood.

(3) The early detection of all cases of venereal diseases by periodical physical examination of the men stripped.

(4) Keeping all cases of venereal disease under continuous observation and treatment until they are cured. For this purpose venereal registers are kept, and a case once on the books is never lost sight of until cured. Should a man be transferred while under treatment to another post or station, his venereal history goes with him.

(5) Instruction of the men by lectures and by informal advice whenever the opportunity offers as to the nature of venereal diseases, the extent of their prevalence among prostitutes, and the grave peril not only to those who contract them but to their families and posterity. They should also be taught that sexual intercourse is not necessary to good health and the highest degree of mental and physical vigor.

(6) Approved measures of personal prophylaxis of those who will, contrary to advice, expose themselves to venereal infection. All the principal European armies, with the exception of that of Great Britain, have officially authorized or directed the use of such prophylactic measures, and a considerable degree of success has attended their use. In some of the Austrian garrisons this system is said to have effected a

decrease of 62 per cent in the cases of venereal disease. In the German Army equally good results have been reported. The general procedure in all the armies is about the same, though there are slight differences in the details, especially in regard to the particular antiseptic employed.

The importance of personal cleanliness was emphasized and suggestions made for the providing of appropriate prophylactic preparations, where they would be accessible to men who desired to use them.

As the result of the campaign thus initiated and given wide publicity through the service by the discussion in the annual report of this office, as well as by correspondence with the chief surgeons of the departments, both in this country and the tropical islands where American troops were stationed, a great deal of interest was aroused among the medical officers of the entire Army. Excellent work was done by a large number of medical officers.

On January 18, 1911, the following letter was sent out from The Adjutant General's Office at the request of this office:

It is desired by this office to continue the study of means of reducing the very serious inefficiency from venereal diseases. For this purpose and in order to get information needed in the preparation of the annual report of this office for the calendar year 1910, it is requested that reports be called for from all post surgeons showing what steps are being taken at the posts for the instruction and protection of soldiers along the following lines:

(1) Instruction of the men by lectures, demonstrations, or printed circulars, by medical officers or company commanders regarding the dangers of illicit sexual intercourse and the advantages of sexual continence.

(2) For those who have not the moral stamina and self-control to observe continence, the necessity of using every precaution for personal cleanliness and also systematic disinfection after illicit sexual intercourse. All the information obtainable is desired as to the use of the "K" packet for the latter purpose.

(3) An expression of opinion is desired from post surgeons and commanding officers as to the efficacy of these measures, and suggestions are desired as to ways in which the prophylaxis of venereal diseases may be made more effective than at the present time.

During the early part of the campaign, department surgeons and individual post surgeons were allowed a great deal of latitude in the methods of prevention to be followed. The general plan was outlined, but the details for carrying out the plan was left to the preference of the individual officers concerned.

After several years the opinions gradually crystallized throughout the medical service that certain methods of prevention were advisable. Among other things, it was thought desirable that a law should be enacted by Congress stopping the pay of all men incapacitated for duty on account of venereal diseases. In addition to this, action by the War Department was considered desirable directing that a certain course of procedure be followed at every post and that men who failed to comply with the orders in regard to personal prophylaxis should be punished for failure to so comply.

The necessary laws were passed by Congress and were published to the Army in General Orders No. 31, War Department, 1912. The action of the War Department making certain measures compulsory and providing that men should be punished for failure to comply with these orders was published in General Orders No. 17, War Department, 1912.

It is enjoined upon all officers serving with troops to do their utmost to encourage healthful exercises and physical recreation and to supply opportunities for cleanly social and interesting mental occupations for the men under their command; to take advantage of favorable opportunities to point out, particularly to the younger men, the inevitable misery and disaster which follow upon intemperance and moral uncleanliness, and that venereal disease. which is almost sure to follow licentious living, is never a trivial affair. Although the chief obligation and responsibility for the instruction of soldiers in these matters rests upon company officers, the medical officers should cooperate by occasional lectures or other instruction upon the subject of sexual physiology and hygiene and the dangers of venereal infection.

Commanding officers will require that men who expose themselves to the danger of contracting venereal diseases shall at once upon their return to camp or garrison report to the hospital or dispensary for the application of such cleansing and prophylaxis as may be prescribed by the Surgeon General. Any soldier who fails to comply with such instructions shall be brought to trial by court-martial for neglect of duty.

Commanding officers will require a medical officer, accompanied by the company or detachment commander, to make a thorough physical inspection twice in each month of all the enlisted men (except married men of good character) of each organization belonging to or attached to the command. These inspections will be made at times not known beforehand to the men and preferably immediately after a formation. The dates on which the physical inspections of the various organizations are made will be noted on the monthly sanitary reports.

At these inspections a careful examination of the feet and footwear and of the condition of personal cleanliness of the men will be made, as well as careful observation for the detection of venereal diseases.

Cases of the latter will be promptly subjected to treatment, but not necessarily excused from duty unless, in the opinion of the surgeon, deemed desirable. They will be made of record in the medical reports in any case. A list of those diseased but doing duty will be kept both by the company or detachment commander and the surgeon, and the infected men will be required to report to a medical officer for systematic treatment until cured. While in the infectious stages the men should be confined strictly to the limits of the post. When a venereal case, whether or not on sick report, is transferred to another command, the surgeon will send a transfer slip giving a brief history of the case.

All instructions from the War Department prohibiting the publication in printed or other orders or instructions prescribing examinations having in view the detection of venereal diseases among enlisted men, heretofore issued, are recalled. (G. O. 17, 1912–1915, 426, A. G. O., as amended by par. III, G. O. 71, 1913–2092551, A. G. O.)

As a result of the active campaign which had been waged and of the two general orders mentioned, a great reduction in the prevalence of venereal diseases resulted.

During all these years, however, the medical authorities were greatly hampered on account of their inability to control the neighborhoods surrounding military posts. Also the difficulty of controlling alcoholic indulgence by the men while away from military posts made the problem much more difficult.

The campaign which had been initiated in 1909, and which had been so vigorously carried on in succeeding years by the military authorities, was continued during the year 1917.

These measures with the aid of all health authorities, both national as well as local, with the stoppage of the sale of all alcoholic liquors to men in uniform, with the excellent public-health supervision of the extra cantonment zones, and with the intensive training in which the men were engaged, all combined to render the control of venereal diseases among the enlisted men of the United States Army ideal. Chart 61 shows the rates for venereal diseases among the enlisted men of the United States Army.

With the expansion of this office in 1917 a special section of the division of laboratories and infectious diseases was established. This section was charged with the supervision and inauguration of prevention and control measures, and closely correlated with a section for the treatment of genito urinary and dermatological cases.

A special committee comprising the administrative personnel of these two sections was appointed to advise the officer in charge of the division. This committee prepared and distributed widely throughout the United States a program of attack on venereal diseases summarized under four headings:

A. Social measures to diminish sexual temptations.
   (1) Especially repression of prostitution and the liquor traffic.
   (2) The provision of proper social surroundings and recreation both within and without the military establishments.
B. Education of soldiers and civilians in regard to venereal diseases and the moral hazards related thereto.
   (1) For soldiers through official lectures, pamphlets, exhibits, motion pictures, and correlated educational work of the chaplains and representatives of religious and social agencies under the supervision of the Commission on Training Camp Activities.
   (2) For civilians through encouragement and assistance to professional, business, commercial, religious, men's and women's organizations and social-welfare associations.
C. Early treatment (or prophylactic measures) against venereal diseases.
   (1) Through treatment stations established in regimental infirmaries and in cities accessible to large numbers of troops.
   (2) Through follow-up measures adapted to individual cases to discourage subsequent exposures to infection.
D. Medical care of those infected.
   (1) Through hospitalization of all cases requiring such action for the best interests of the patient, for shortening of the noneffective period, and for the protection of other soldiers.
   (2) Dispensary treatment and follow-up supervision for those who do not require admission to or further detention in the hospital.

The importance was emphasized of correlating these four major lines of attack with the laboratory, sanitary inspection, hospital, and reconstruction divisions of the Medical Department on the one hand and on the other with the recreation, law enforcement, education, and clinic activities of the War Department Commission on Training Camp Activities and the United States Public Health Service.

The following paragraph was used to introduce a frank appeal for civilian cooperation:

> In its popular interpretation, social hygiene has been used as a phrase to refer inclusively to all efforts for protection of the population from prostitution and venereal disease. Prostitution in its various forms affords the chief opportunity for disseminating the venereal diseases and promoting sexual promiscuity. Neither the military nor the civil authorities have been able effectively to combat this medical social evil alone. The assembling of troops in the vicinity of civil communities has always introduced a difficult social problem on the one hand and on the other has attracted the promoters of organized vice, who have established the commercialized activities known to increase the supply and demand for prostitution. The civil authorities within whose jurisdiction these practices were carried on were inexperienced in dealing with the situation, and the military authorities had no legal power under which to take action.

The statement was made that the Army considered the problem of safeguarding the morals and health of its soldiers to comprise several groups of measures:

(1) For the protection of the drafted man while he is still at home, before being called to the colors, and while he is en route to his military station.

(2) For the protection of the soldier at all times while in the military service until final "muster out."

The work of the section during the past year has been devoted largely to planning and carrying out, directly or in cooperation with other departments or civilian agencies, measures applicable to each of these phases of the problem.

In addition to the administrative personnel of the section, an officer has been assigned to the War Department Commission on

Training Camp Activities to direct its law enforcement work for the repression of prostitution and the use of alcohol; the reduction of the number of carriers of infection through work with women and girls for their own protection and the protection of soldiers; and Federal assistance to States in provision for detention houses and reformatory facilities required for the care of civilian persons whose quarantine, isolation, or commitment to an institution is necessary for the protection of the armed forces of the United States from venereal diseases. Forty-five commissioned officers and an equal number of noncommissioned officers have been assigned as extra-cantonment zone officers for the promotion of this work under the direction of the chairman of the commission.

An officer has also been assigned for the direction of the social hygiene educational work of the commission, which supplements the company commanders' talks required by The Adjutant General and the medical instruction given by the regimental surgeons and other officers of the Medical Department. Ten commissioned officers and 47 noncommissioned officers have been assigned to this work.

An officer has been assigned to the direct supervision of the extra-cantonment early treatment (or prophylactic) stations in cities adjacent to military establishments or frequently visited by soldiers on liberty or furlough. Two commissioned officers and 150 noncommissioned officers and men have been detailed to this work.

In addition to the above, the section personnel has included a group of five officers for special assignment to epidemiological and sociological phases of venereal diseases control. Besides the various cooperative measures with States having bureaus of venereal diseases, arrangements were made with the States of Massachusetts, Kansas, and North Carolina for the assignment of officers from this group as chiefs of bureaus of venereal diseases, to demonstrate the relative values of special programs for the reduction of venereal diseases among civilians.

With the passage of the Army appropriation bill for 1918 establishing a division of venereal diseases in the bureau of the United States Public Health Service, the continuance of these demonstrations has been transferred to this division with the cooperation of the Army. The original Massachusetts demonstration has been enlarged to include the States comprising the Northeastern Department, i. e., Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island, and the medical officer originally detailed to Massachusetts as medical-military adviser concerning venereal diseases will serve as the supervising director of the venereal disease bureaus of these six States, being detailed for special duty to the division of venereal diseases of the Public Health Service. Other officers have been assigned to this division of the service to direct educational activities being carried out in correlation with the program of the Army.

Another type of activity of the section is illustrated by the so-called Newport News or Hampton Roads demonstration. Newport News as a port of embarkation receives large bodies of troops from which all recognized cases of venereal infection have been removed prior to entraining for the port. The importance of protecting these troops from fresh infection can not be overestimated. With the approval of the Secretary of War, the Surgeon General, the commanding general, and the chairman of the Commission on Training Camp Activities have cooperated in carrying out with special thoroughness every measure thus far proved practicable in the protection of soldiers from venereal diseases and their prompt restoration to active service after infection.

Newport News presents such geographical, social, and industrial conditions as well as military and naval conditions that it was decided to make a demonstration of social hygiene measures for civil as well as military and naval protection. The offer of the American Social Hygiene Association to supplement as a volunteer agency the direct activities of the Government in this demonstration has been accepted. The section is furnishing commissioned and noncommissioned officers and enlisted men for the demonstration.

Since the infection of soldiers with venereal diseases occurs in civilian communities and not within the cantonments or other military establishments, the Medical Department has considered it justifiable to cooperate in every way with State and local civil authorities. Suggestions for State board of health regulations for the prevention of venereal diseases, approved by the Surgeons General of the Army, the Navy, and the Public Health Service, have been promulgated and in cooperation with the American Red Cross assistance has been given the United States Public Health Service in establishing Government clinics in 42 extra-cantonment cities. The need for Federal assistance to the States in extending diagnosis and treatment facilities to infected civilians during the national emergency and for perpetuating such facilities has been brought to the attention of Congress.

A considerable portion of the time of officers of the section has been devoted to explaining these needs through correspondence, interviews, and lectures given by invitation and to the preparation of data requested by Congress prior to the passage of the amendment to the 1918 Army appropriation bill with the appropriation carried by Chapter XV creating the Interdepartmental Social Hygiene Board, totals $4,100,000.

In providing for the Interdepartmental Social Hygiene Board, it was the purpose of Congress and the President to insure continued close cooperation of the several departments of the Government in correlating measures against venereal diseases with measures against prostitution, liquor, and the other evils ordinarily included under the term social hygiene. The personnel of this board comprises the Secretaries of War, Navy, and Treasury, and one member each from the commissioned personnel of the Medical Departments of the Army, Navy, and Public Health Service appointed by the three Secretaries, respectively.

Measures for the prevention of any human-carrier disease are limited without general compulsory immunization as in the case of smallpox or the active cooperation of informed individuals who constitute two classes—those already infected and those susceptible to infection. Since no practical methods of immunization against this group of diseases exist, special emphasis has been placed upon the development of educational measures. Five million copies of pamphlets and educational leaflets explaining the Government's social hygiene program and restating the essential parts of it in many different ways have been distributed, either directly by the Medical

Department or by the Commission on Training Camp Activities or other agencies with the approval of the Surgeon General.

Officers of the section have been detailed to the demonstration of several special methods of education through the use of these pamphlets, placards, lantern slides, and illustrated posters. Officers of the section have also been detailed to the development of special motion pictures. These officers in cooperation with others similarly detailed by the Army Medical Museum and representatives of the Commission on Training Camp Activities, the American Social Hygiene Association, the Young Women's Christian Association, other volunteer agencies, and individuals have thus far produced two films. One of these has been widely utilized in the educational program with the soldiers and has been increasingly in demand for promotion of the civilian campaign against venereal diseases which has been conducted simultaneously with that of the Army. The other film was intended primarily for use in civil communities to aid in the education of women and girls upon the importance of combating venereal diseases and maintaining moral standards. This film has likewise been increasingly in demand by military as well as civil authorities

The section activities thus briefly sketched relate primarily to activities in the United States. The medical officers in immediate charge of the treatment and control of venereal diseases with the expeditionary forces have been equally active in establishing essentially the same program although the emphasis on various factors has not been the same because of different conditions which they have had to meet. One officer of the section has been on duty during the year with the expeditionary forces.

The change in policy of the War Department from orders excluding all demonstrable cases of venereal diseases from enlistment in the Army to orders admitting all infected men whose condition is such that there is a reasonable hope that treatment will render them innocuous to others and available for even limited military service makes it difficult to compare without explanation the annual rates of previous years with the annual rate for the past year.

Chart 62, however, shows that even before the year 1917, the rates for venereal diseases at recruiting depots were always noticeably higher than for the other military posts in the United States. This shows that even then a large number of men were taken into the military service, either with active venereal diseases or in the incubation period when enlisted.

In an endeavor to still further reduce the damage to the efficiency of the Army caused by these diseases, the section has detailed officers to a study of the relations to the problem of colored troops and the civilian colored population. This is being done with the active cooperation of national and local organizations of colored people and societies interested in the advancement of the colored people. As a part of this special program, colored sergeants have been detailed in a series of camps to work with the colored troops and further efforts are being made to provide adequate recreation and treatment facilities.

Since recreation and wholesome entertainment are such important factors in counteracting the appeal to the soldier of sexual adventure during his leisure time, the section has assigned for temporary duty a number of noncommissioned officers and enlisted men to the war camp community service which is one of the organizations working under the supervision of the War Department Commission on Training Camp Activities.

The problem of venereal diseases has received unusual attention during the year, and every effort has been made to stimulate and follow up public interest in the prevalence of these diseases in the Army.

VI. Division of Internal Medicine.

1. GENERAL.

The war experience has convinced the allied nations of the necessity of expert revision of the diagnosis of tuberculosis in the Army. Thus the French have established several "centres du triage" and the Italians "diagnostic hospitals" for that purpose. This need was foreseen at an early date after the entrance of the United States into the war. Furthermore it seemed advisable to institute examinations in order to quiet the anxiety of the people which had been excited by reports which fortunately were found at a later time to be exaggerated, as to the alarming prevalence of tuberculosis in France and this course was recommended by the National Tuberculosis Association.

For these reasons it was decided in June, 1917, that the Army should be reexamined for tuberculosis. The work was done by physicians commissioned in the Medical Reserve Corps who had special qualifications as internists or tuberculosis specialists, of whom as many as 600 have been employed at one time or another at this task. For their guidance directions were drafted which are incorporated in Circular No. 20, S. G. O. The work which was delayed from various unavoidable causes was practically complete in March, 1918, so far as the forces in the United States were concerned, 1,200,990 men having been examined and 9,648 cases of tuberculosis having been recommended for discharge. Of the total 190,398 belonged to the mobile troops of the Regular Army with 1,444 rejections, a percentage of 0.758; 446,157 to the National Guard with 4,905 rejections, percentage 1.099; and 399,429 to the National Army with 2,597 rejections, percentage, 0.65.

With the increment of the draft call March 26, 1918, the primary examination after entrance into the military service was undertaken by the tuberculosis examiners so far as the lungs were concerned, and from that date has been carried on by them, 937,185 men having been examined and 5,331 rejected on account of tuberculosis up to June 30, 1918, a percentage of 0.567.

The work in tuberculosis was associated at an early date with that of reexamination for cardiovascular conditions and the two activities were combined to form the division of internal medicine. To this division were also assigned temporarily the phychiatric and orthopedic specialties and at a later time a section of gastroenterology was added to the tuberculosis and the cardiovascular sections.

It was soon found to be advantageous to institute a course of instruction in the diagnosis of lung conditions, especially tuberculosis, not only in order to increase the skill of the examiners, but also to observe their work and classify them according to their proficiency.

Instruction of this kind has been given uninterruptedly at the Army Medical School, Washington, D. C., and at the medical officers' training camps at Fort Oglethorpe, Ga.; Fort Riley, Kans., and, until its close, at Fort Benjamin Harrison, Ind. Similar instruction has also been imparted to the medical officers of various camps and hospitals in courses given by traveling instructors. In all about 500 medical officers have received this instruction. In addition to the examining boards, a tuberculosis specialist has been assigned to the base hospital of each of the division camps and to some of the general hospitals and in addition, a division specialist has been attached to the mobile troops of the greater number of the divisions.

The William Wirt Winchester Memorial Tuberculosis Hospital, New Haven, Conn., has been leased from the New Haven City Hospital for the period of the war for use as an Army tuberculosis hospital, being known as United States Army General Hospital No. 16. This hospital of 250 beds has been increased in capacity to 600 beds by the construction of temporary buildings of wood and is now in operation. At this hospital instruction is given to a class of medical officers from whom are to be selected the staffs for tuberculosis hospitals now under construction.

A sanatorium at Markleton, Pa., has been leased for temporary use as a tuberculosis hospital. This hospital has a capacity of 150 beds enlarged by the construction of three ward buildings to a capacity of 270 beds. This hospital is United States Army General Hospital No. 17. A hotel has also been temporarily leased at Waynesville, N. C., for use as a tuberculosis hospital. The buildings will accommodate 250 patients. Its capacity has been enlarged by the use of tentage to 500 beds. It is known as United States Army General Hospital No. 18.

A hospital of the capacity of 650 beds, of temporary wooden buildings has been constructed at Otisville, N. Y., upon the tract of land belonging to the City of New York and in part occupied by the New York City Municipal Sanatorium. It is United States Army General Hospital No. 8.

A hospital of the capacity of 1,000 beds is now under construction at Azalea near Asheville, N. C. The buildings are of a temporary character.

A hospital is also being built at Denver, Colo., with a capacity of 1,000 beds. The buildings will be of a permanent nature, the material used being hollow tile. The post of Whipple Barracks, near Prescott, Ariz., has been turned over to the Medical Department for use as a tuberculosis hospital. The buildings now standing will accommodate 200 patients and the capacity will be increased to 1,000 beds by the erection of temporary buildings. When all the construction contemplated shall have been finished 6,020 beds will be available for tuberculosis patients.

2. CARDIOVASCULAR SECTION.

One of the first activities of the cardiovascular section was the preparation of Circular 21, S. G. O., as a guide on the examination of heart and blood vessels. Prominent clinicians who were especially familiar with the diseases of the heart were commissioned from all parts of the country and were assigned in boards combined with the tuberculosis examiners, or separately, to make or supervise the cardiac examinations, of the Regular Army, officers' training camps, the National Guard, and the registrants for the National Army upon their arrival in camps. It has been found that groups of special cardiovascular examiners are needed permanently in these camps to which registrants are constantly being sent, while single cardiovascular examiners have been required at recruiting stations and barracks during the spring draft and at all camps or base hospitals. About 190 medical officers and contract surgeons have been employed for the work at various times. The number of cardiovascular examiners and specialists on duty in this country on June 17, was 111. During the examination of the first draft and the National Guard, 44 officers and 41 contract surgeons were assigned to this duty.

Percentages and causes of rejection during the first draft.—The methods of examination varied somewhat in different camps, so that the figures submitted by the examiners from different camps are not absolutely comparable, still the total figures for the examinations are so large that individual differences are obscured. It was found that during the examination of the registrants in camps, 2 to 5 per cent usually required a very careful examination of the cardiovascular system and were referred to a cardiovascular specialist for this purpose. The rejections for cardiac disease varied somewhat in the different camps. The results of the examination of 436,530 men, which have been carefully tabulated, show that the rejections for cardiac disease varied usually from 0.1 per cent to 1.4 per cent, but in one camp reached the very high figure of 4.6 per cent. Including this camp, the rejection of the total strength was 0.94 per cent. Exclusive of this camp, the percentage of rejection was 0.5 per cent for all camps. The percentage of rejections at the National Army camps was slightly higher than that at the National Guard camps—0.63 per cent for the National Army and 0.47 per cent for the National Guard.

The causes for rejection and the relative frequency with which the different forms of organic heart lesion were found were strikingly similar in the different camps. The accompanying table shows the causes for rejection of 4,622 instances of heart disease and cardiac disturbances.

Summary of causes of rejection by cardiovascular boards in National Army and National Guard.

	Number rejected.	Mitral.		Aortic.		Tachycardia.		Hyperthyroid.		Myocarditis.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
National Army........	2,681	1,552	58	326	12	140	5	159	6	244	9
National Guard........	1,941	1,088	56	301	15	54	3	258	13	180	9
Total............	4,622	2,640	57	627	14	194	4	417	10	424	9

During the second draft, beginning May 1, 1918, reports from 305,864 examinations have so far been received. The rejections for organic heart disease are practically the same as during the last draft, being about 0.5 per cent. The total rejections, including functional cases, however, is higher, being 1.13 per cent.

In addition to the cardiovascular examiners, one officer who had had special training in the examination and care of cases of heart disease has been assigned to the medical service of each cantonment hospital. To these officers men who have broken down during their training with cardiac symptoms have been referred, and in some camps methods have been established for retraining and systematic exercise for many of these soldiers who are suffering from such functional disturbances as "irritable heart."

Instruction.—A school of instruction in the methods of examination of the cardiovascular system was first started at the hospital of the Rockefeller Institute. During the late summer and autumn 18 officers of the Medical Reserve Corps received instruction in this course. Later, in conjunction with the tuberculosis division, courses of instruction in the physical diagnosis of the chest were organized at the medical officers' training camps at Camp Greenleaf and Fort Riley.

During June of 1918 a more advanced course of instruction in cardiovascular diseases has been established at United States Army General Hospital No. 9, Lakewood, N. J. A small group of student officers are given advanced instruction in preparation for work as cardiovascular specialists on examining boards and in base hospitals. Still another method for the instruction of Medical Reserve officers has been made available through the cooperation of the British Government, and during the winter and spring 20 officers have been assigned for instruction at the British Heart Hospital, Colchester, England.

Instruction has been given not only in cardiovascular diseases but in other subjects. It was early recognized that lobar pneumonia would prevail throughout the camps during the winter, and preparations were therefore made to furnish to each base hospital an experienced clinician who was thoroughly trained in the newer methods of laboratory diagnosis and serum treatment of lobar pneumonia. A few such men were immediately available and were detailed for work in those base hospitals where pneumonia was most prevalent, but other officers who were specially selected for this service required further training, and to this end a course of instruction by Dr. Rufus I. Cole and Capt. Dochez was instituted at the hospital of the Rockefeller Institute under the direction of Maj. Simon Flexner. Twenty-six officers have been trained at the Rockefeller Hospital. Recently this special school of instruction has been transferred to Camp Jackson, where officers are now being assigned for an advanced course.

Previously a small number of Medical Reserve Corps officers had been assigned to Camp Jackson for instruction in meningitis. The course has now been combined with the instruction in pneumonia, and to it has been added instruction in general medicine. Officers selected for the purpose have been assigned to duty at this hospital to assist the chief of medical service in the instruction of these student officers. Similar courses of instruction in general medicine are now being given to medical officers assigned as assistants to the chief of medical service at the base hospitals at Camp Devens, Camp Meade, Camp Sherman, and Camp Custer.

3. MEDICAL PERSONNEL OF BASE HOSPITALS.

During the organization of the base hospitals in this country the division of internal medicine was requested to select the chiefs of medical service for these hospitals. Later the assignment of all officers for duty on the medical services of base hospitals and United States Army general hospitals in this country, as well as on the medical services of the base hospitals and evacuation hospitals for over-seas duty, was referred to the division of internal medicine. The chiefs of medical service have been selected from among the most prominent clinicians in the country, while every effort has been made to assign to the medical services as assistants officers who have had hospital experience and some training in internal medicine. There have now been assigned by the division of internal medicine 67 officers as chiefs of medical services and approximately 1,000 assistants on the medical services of base, general, and United States Army hospitals in the United States. In addition to this, 36 officers have been assigned as chiefs of medical service of overseas base hospitals, and 22 officers as chiefs of medical services of evacuation hospitals. As assistants to the chief of medical services, 153 officers have been assigned to these hospitals.

By means of questionnaires sent from the hospital division to all hospitals in this country, all officers retained by the division of internal medicine have been classified according to the estimate of their qualifications rendered by the commanding officers and chiefs of medical service. By this means it is possible to release all men unfitted for hospital work for other services and to keep the personnel of the base hospital on a high level of efficiency. Finally, with a view to improving the medical services, each chief of medical service was ordered to visit during February and March three other base hospitals.

4. SPECIAL SERVICES, ETC.

During the period in which the epidemic diseases were prevalent, three mobile medical units were organized, each composed of three officers selected for their knowledge of infectious diseases. These units were moved from one hospital to another to assist in the care of cases of infectious disease. Other groups of selected officers have been assigned for the clinical work with a commission to study pneumonia at the base hospital, San Antonio, and at the base hospital, Camp Cody, with a commission for the study of empyema at the base hospital, Camp Lee.

In order to obtain data regarding the incidence of different types of pneumonia, the mortality and the results of specific treatment of this disease, a questionnaire was sent in conjunction with the laboratory division to the United States base and general hospitals in this country.

5. SPECIAL HOSPITALS.

Three general hospitals have been designated as those to which cases of heart disease are to be sent for special treatment. These three hospitals are United States Army General Hospital No. 9, Lakewood, N. J.; base hospital, Fort Des Moines, Iowa; and United States Army General Hospital No. 6, Fort McPherson, Ga. At General

Hospital No. 9 at least 100 beds have been set aside for the cardiac service. Every effort has been made to equip this service, not only for the routine care of cardiac patients, but for the special investigation of the condition known as the "effort syndrome" or "irritable heart." Officers have been selected for this work who are trained investigators and clinicians and who are believed to be the best men in the country for this particular work. The hospital has been equipped with a heart station and electrocardiograph, as well as some special physiological apparatus which will be required for this work. Request has likewise been made for an electrocardiograph and heart station at Fort Des Moines and, should the need warrant it, a heart station will be requested for United States Army General Hospital No. 6.

A section on gastroenterology was created as a part of the division of internal medicine in October, 1917, the special object of which was to furnish an officer especially trained in gastroenterology for service at each of the base hospitals. Practically all the base hospitals have thus been provided.

It is impossible to close this report without calling attention to the valuable and untiring services which were so freely given by the late Maj. Theodore C. Janeway in helping to organize and define the policies of the work of this division. His untimely death deprived this division, as well as the entire country, of an officer of mature and well-balanced judgment and of great skill.

VII. Division of General Surgery.

The division of general surgery was organized to classify the surgeons of the Medical Reserve Corps according to their professional qualifications, to provide schools for the training of men less proficient, to standardize surgery and equipment, to inspect the surgical staffs of hospitals, to maintain and increase surgical efficiency by the organization of surgical teams and the investigation and consultation of special surgical problems as they arise.

1. Surgical Equipment Board.

This board was formed to investigate and examine surgical equipment and appliances and to standardize them in regard to type quality, and quantity, according to the needs of the surgical service.

Owing to the war our imports of high-grade surgical instruments from other countries have been curtailed, it was necessary to draw upon our own manufacturing resources to meet the urgent demand for instruments. In order to secure them in sufficient number types were adopted that were simple and capable of being produced in large quantities in the quickest time. Although not always the most suitable they were used until they could be replaced by others more desirable.

The standardization of surgical instruments and appliances has done much to promote rapid equipment of our hospitals and the efficiency of the service.

In the early stages of production numerous cases of faulty surgical equipment was discovered as result of the use of inferior materials and poor workmanship in the endeavor to secure quantity production to meet the emergency. Since the first urgent demands have been met, instruments of better material and workmanship have been substituted for those found faulty or of unsuitable design.

The gauze situation, like that of instruments, became very acute in the early months of the war. After numerous experiments a knitted gauze was adopted as standard. This type of gauze can be used several hundred times and is now being supplied to all hospitals in the country of 100 beds or over. A special laundry unit under the supervision of a sanitary officer has been arranged for at each base hospital for the reclamation of the used gauze. It is hoped in the near future to install portable laundry units in the overseas and evacuation hospitals.

In adopting a portable type of oxygen-gas apparatus it was necessary to take into consideration its portability and adaptability to the conditions encountered overseas. Several types have been adopted as standard and are now being issued as rapidly as possible.

From the results of the experiments carried on by the Rockefeller Institute of Medical Research of New York and the surgical and medical staffs of the base hospitals the value of Dakin's solution in certain infections has been established. Owing to a widespread streptococcic invasion in this country it was necessary to supply a large number of the Carrel-Dakin apparatus to the base hospitals. The supply is adequate both for this country and overseas. All questions as to the proper type of apparatus for administering or manufacturing Dakin's solution have been referred to the Rockefeller Institute for their recommendation and the methods employed at this time are satisfactory.

As an aid to the conservation of transportation space a wheeled stretcher carrier, equipped with a metal litter, designed to fit any type of standard field litter, available for either hospital or field service and as an emergency operating table, was devised and developed in the office of the Surgeon General.

Provisions have been made to increase the sterilization facilities at base hospitals which have not proven adequate. Where the operating pavilions are to be enlarged, an additional sterilization unit will be installed, that pus and clean services may be effectively separated. Active cooperation has been encouraged in the hospitals between the chief of laboratory service and surgical service.

An operating table more durable than the one now in use has been recommended for immediate issue.

Drugs for local anaesthesia are now supplied where needed although during the recent epidemic of empyemia they were somewhat unavailable.

Orthopedic apparatus and appliances are being gradually standardized.

A more efficient lighting unit for operating rooms is being installed where required.

An increased supply of Monorief dressing sets is being provided to facilitate ward work. The large number of empyema and other primarily infected cases makes it essential to facilitate this daily labor. A reserve supply of all base hospital surgical instrument equipment has been recommended.

Where experience has proven the inadequacy of any particular instrument for the type of work that develops in any service, suitable substitutions have been made.

Some few shipments of foreign-made instruments, especially hemostats, have been found on inspection to be below the standard. This deficiency is in process of correction.

Needles are now available in abundance, and for spinal anaesthesia a flexible, nickeloid type has been substituted.

The mobile operating unit now completed and ready for service, has been fully equipped with specially constructed motorized sterilizers, X-ray outfits, and surgical instruments, with a suitable reserve supply for all emergencies.

Many other changes, additions and substitutions of varying importance have been recommended, and it is believed that in so far as is practical the foundation for standardization and adequate provision for a supply of surgical instruments and equipment to meet the needs of the service has been successfully established by the supply division.

2. MAINTENANCE OF SURGICAL EFFICIENCY.

This department has charge of the inauguration and supervision of classes for intensive instruction in war surgery and fractures, the treatment of infected wounds by the Carrel-Dakin method, the instruction in the administration of anaesthetics, the supervision of the character and efficiency of the surgical work done throughout the Army, the inspection of the surgical staff at hospitals and the investigation and consultation with regard to special surgical problems as they arise.

The question of the instruction of medical officers was a complicated one, but was handled with due deliberation after procuring data by questionnaires and personal visits to the various cantonment hospital multiple inter-office consultations. Various schools in New York, Boston, Philadelphia, Chicago, Pittsburgh, Cleveland, New Orleans, and Rochester (Minn.), have been detailed to give intensive training and clinical instruction to the medical officers. In the cantonment hospitals every possible aid to the teaching of surgery was utilized.

The educational phases of the work have had to do with the problem of bringing to the surgical staffs of the hospitals the latest information upon war surgery, and such other instruction as would fit the members of the surgical service for the proper care of patients in hospitals. Outlines of lectures have been prepared for instruction in hospitals; abstracts of the literature of war surgery up to the present have been furnished the surgical staffs; a monthly abstract of current war surgery is being published; classes already formed in various surgical centers have been supervised and other classes added; moving pictures and lantern slides have been produced and sent to the hospitals.

The class work has consisted of 11 classes dealing with war surgery and fractures. These classes last for approximately three weeks and have sent to them from various parts of the United States those members of the service whom it is felt would be benefited by an intensive course in the treatment of war injuries. These men on their return to the camps instruct those who have not attended the course.

In addition to this, a special course in the Carrel treatment of wounds, inaugurated some months ago, has been maintained at the Rockefeller Institute.

These lectures outlined have had to do with war surgery, and have been sent as a part of the abstract of war surgery (noted above) to the various cantonments for the use of those who lecture on surgery and who will be called upon to instruct the other members of the staff.

A series of 200 lantern slides dealing with war surgery and used to illustrate and emphasize the lectures have been prepared. For a similar purpose, a moving picture upon the treatment of wounds, and a second upon the treatment of burns have been produced and are on a circuit going to the various camps.

The abstract of war surgery, in preparation of which Maj. Kanavel was assisted by Maj. Seelig, is a volume of 300 mimeographed pages, and brings the war literature up to date. It has been sent to the camps, evacuation hospital groups, and others who will come in direct contact with war surgery.

The monthly Review of War Surgery and Medicine was inaugurated as a part of this educational program, but is now under the supervision of Maj. Seelig, who has taken entire charge of collecting material and publishing it. It is a monthly magazine of 64 pages containing reviews of war surgery.

About one-half of the hospitals and the training camps at Fort Riley and Fort Oglethorpe have been visited, where the inspecting officer has had conferences with the chiefs of the surgical services and the personnel. The cases in the wards have been observed, and suggestions made as to treatment and care of the patients. During these visits, special attention was paid to the surgical technique so that the division of surgery is constantly in touch with the character of the work being done, and in a position to place its officers properly, and to assure to the patients proper surgical attention.

The procuring of monthly reports from all hospitals has also aided in maintaining professional efficiency. A monthly report is required from each hospital covering the details of surgical operations, supplemented by a special report as to deaths and clean wounds that become infected. A study of these reports and the action upon them by Maj. Kanavel has served to keep the office in touch constantly with the character of the work being done in all hospitals, and has permitted us to follow up in detail patent errors in service or every death that has occurred. Through the reports he is able to check up upon the technique in the various hospitals, and in those cases in which infection of wounds or death has ensued, we have been able to place the responsibility and institute the changes necessary to maintain efficient service.

Attention to special surgical problems has also been under Maj. Kanavel's supervision.

During the months of December, January, and February, a considerable number of cases of pneumonia were reported from all the camps in the South. Accompanying this epidemic of pneumonia, so called, a large number of empyemas began to be reported. During an inspection trip through the different camps it was recognized that this epidemic of pneumonia with empyema accompanying it constituted a type of general septicemia with tendency to localization in the lungs and pleura; that the invading organism was in the greater proportion of cases a streptococcus, generally of the hæmolytic type. At all of the camps much work has been done in attempting to determine the nature of the infection. The mortality varied from 40 to 70 per cent in those cases in which a large amount of fluid developed in the pleura cavity. The method of treatment in the early stage of the epidemic had been universally drainage by removal of one of the ribs, generally in the mid-axillary line, but in some of the camps repeated aspirations had been attempted. In some of the camps the number of cases showing empyema, so called, had been considerably over one hundred.

Owing to the gravity of the situation, study of the subject was begun. In addition to committees from the Surgeon General's Office, through the commanding officer of each of the base hospitals, local teams were formed in each hospital from the attached personnel, consisting of a surgeon, an internist, and a bacteriologist, to study the local conditions. All this information was collected in the Surgeon General's Office and disseminated to the various camps.

As the spring advanced, the epidemic spread to the North and Camps Dodge, Taylor, and Custer became invaded. At Camp Dodge, a study was made of the pathology of this condition. As a result of the investigations, the pathological nature of the disease was established. The commission at Camp Lee soon established the wiser procedure in streptococcus infections and insisted on conservative treatment until the acute pneumonic process had subsided. During this period aspiration was undertaken if the respirations were seriously embarrassed. As soon as the resistance of the patient had been raised somewhat, and the acute pneumonic process had subsided, drainage between the ribs was instituted by means of a thrutter valve tube. This being soon withdrawn, it was found that these cases could be healed within three weeks after drainage was instituted. At the Rockefeller Institute under Maj. Stewart, early operation followed by the installation of Dakin's solution, was followed by considerable primary mortality, owing to the early operative procedure, but the important fact was established that in 80 per cent of the cases in from a week to ten days a pleural cavity could be rendered sterile and the wound sutured without subsequent drainage. The general nature of the treatment as instituted at Camp Lee had already been arrived at in a great many of the camps, notably, Taylor, Pike, Lewis, etc., so that the principle of conservative treatment at the early stages became firmly established.

At this time the subject of the treatment of chronic cases was begun by the commission and others, and the Surgeon General's office began to accumulate these patients in separate centers for intensive study.

3. SUMMARY OF REPORT ON REPLIES TO QUESTIONNAIRE ON EMPYEMA.

A. MORTALITY.

The numerous cases of empyema which have occurred in many of the camps during the past winter have presented features so unusual and oftentimes so puzzling that it is the almost unanimous opinion of those who have seen many of them that the particular complex of symptoms and pathological findings presented by them is new. Medical officers of wide experience both in civilian and military life state unreservedly that they have never before met with anything which corresponds with the recent type of empyema or compares with it in severity.

The average mortality based on replies from the 25 camps which gave their results has been 30.2 per cent. But this mortality, as high as it is, does not begin to represent the remarkably high mortality which has occurred in some of those camps which have had a large number of cases. For example, at Camp Funston, in 85 cases of empyema, the mortality has been as high as 84 per cent. Again, at Camp Greene, in 92 cases of empyema, it has been 53.2 per cent; at Doniphan it has been 57 per cent; and at Wheeler, 65 per cent. These high figures are to be contrasted with the records of no mortality at Camps McClellan and Wadsworth, where in each instance relatively few cases of empyema developed, as, for example, only 6 cases at McClellan and 2 cases at Wadsworth.

Certain factors have apparently had a remarkable influence in producing this high mortality. Chief of these undoubtedly has been the type of organism concerned. It is practically the universal opinion that those cases of empyema associated with the prevailing strain of hemolytic streptococcus have had a much higher mortality than those associated with the pneumococcus. This fact is strikingly shown in the report from Camp Funston, as follows:

Cases of empyema secondary to primary lobar pneumonia	47
Deaths from these cases	32
Mortality (per cent)	68
Cases of empyema secondary to measles-pneumonia	38
Deaths from these cases	36
Mortality (per cent)	95

In this series, 95 per cent of the cases of measles-pneumonia were found to be associated with a streptococcus (chiefly hemolytic), and in 60 per cent of the cases of primary lobar pneumonia, a streptococcus (again chiefly hemolytic) was found. This relationship between organism and mortality has also been borne out at Camp Sheridan, where it is reported only pneumococci were found in the pleural fluids and the mortality has been only 13 per cent. At McClellan, where there was no mortality, streptococci were found in only two of the six cases in which positive cultures were obtained. At Wadsworth, where there was also no mortality, the streptococcus was found in one case and the pneumococcus in the other of the two cases reported.

Another factor of great importance has been the occurrence of many of these cases of empyema secondary to a pneumonic process associated with measles, as will be seen in the report from Camp Funston given below. The influence of the measles in increasing the mortality is strikingly shown also in the following report from Camp Greene:

	Per cent.
(*a*) Empyema following pneumonia without measles:	
Total cases, 35; deaths, 18; mortality	51.4
(*b*) Empyema following pneumonia (lobar or broncho) after measles:	
Total cases, 14; deaths, 10; mortality	71.4
(*c*) Empyema after measles without pneumonia:	
Total cases, 29; deaths, 18; mortality	62.0
(*d*) Empyema without measles or pneumonia:	
Total cases, 14; deaths, 4; mortality	28.5

Again, in the reply from Camp Gordon the statement is made that 75 per cent of the fatal cases of empyema were associated with a post-measles pneumonic process; and of the 10 deaths at Shelby, 8 were cases which developed after measles.

Possible explanations of the striking differences in mortality reported from various camps in the empyema cases are to be found, (1) in the fact that there has been a marked disagreement concerning what cases should be considered as empyema, and (2) in the methods of treatment employed.

Owing to the fact that the exudate most commonly found is a slightly turbid serofibrinous fluid, with pus demonstrable only microscopically, in some of the camps only those cases have been considered as empyema which yielded frank macroscopic pus. In general, those camps which reported the lowest mortality have regarded as cases of empyema only those in which the exudate has been frank pus; and conversely the highest mortality figures have come from those camps in which all cases showing even microscopic pus in the pleural exudates have been considered as cases of empyema.

The relationship of methods of treatment to the mortality will be considered in detail in section 5 below.

B. PATHOLOGY AND BACTERIOLOGY.

The most striking feature about the pathological picture has been, in general, the multiplicity of the lesions and the pronounced evidence of a systemic infection. In those cases associated with empyema the pleural lesion has often been insignificant compared with findings elsewhere in the body. The whole process has been distinctly atypical when compared with the usual empyema, secondary to lobar pneumonia, with which everyone is familiar. There has been evident a well-marked tendency to involve serous membranes in general, which has been particularly manifested by rather frequent affection of the pericardium and the peritoneum, and less frequent involvement of the endocardium and synovial membranes. This tendency has been so pronounced that in the reports from many of the camps it has been distinctly stated that the empyema has been merely one manifestation of a "polyserositis." Other cases have been admitted directly into the pneumonia wards with pulmonary symptoms and physical signs suggestive of broncho-pneumonia. Other cases have followed tonsillitis or pharyngitis. In the fatal cases the patients presented the picture of a severe infection. Often the physical signs in the chest were slight or obscured and the final accumulation of fluid was very rapid. At necropsy a general septic lymphadenitis was found. Usually the spleen was not enlarged and did not present the picture seen in the spleen of a lobar pneumonia due to pneumococcal infection. The various serous membranes were involved to a varying extent, the secondary lesion being now in one membrane such as the peritoneum, and again in the pericardium. Four cases of vegetative endocarditis were found, one of which had progressed to the ulcerative stage. Broncho-pneumonia of some degree was present in all the fatal cases of empyema. The extent of the infection outside of the pleura was so great as to preclude the possibility of recovery either with or without operation. Streptococci were usually recovered from the heart's blood postmortem.

The characteristics of the exudate have varied greatly in different cases. The exudate most often has been serofibrinous in nature, odorless, and with a slight turbidity, due chiefly to the presence of relatively few polymorphonuclear leucocytes. It has usually contained micro-organisms (chiefly streptococci) in such large quantities that they could be demonstrated in smears in abundance.

When distinct pus has been present it has usually been in relatively small localized abscesses. The amount of the exudate has been subject to very wide variation.

In many cases, owing to the extensive development of fibrinous adhesions, there has been a marked tendency of the exudate to become sacculated with the formation of multiple pockets. These pockets have been particularly frequent in the interlobar fissures and under the sternum beneath the anterior flap of the lung. Camp Sevier has reported that in all the autopsies in which empyema was present (five cases) substernal pockets of pus were found. Camps Greene, Lee, Shelby, Sherman, Travis, and Upton all state that substernal pus pockets have been observed frequently.

The replies from different camps indicate rather a wide divergence of opinion as to the essential pathology of the lung conditions found n the majority of the cases of empyema. In general some sort of a pneumonic process has been present, described usually as either a obar or broncho pneumonia. An initial broncho-pneumonic process by extension frequently became so massive that it took on a lobar distribution, or even involved the whole lung. Abscesses of the lung have been rather frequently observed. Collections of pus have occasionally been found extending into the lung from the periphery as f secondary to the pleuritis. In general, however, it would seem hat, at least in the majority of cases, the essential pulmonic lesion has been an inflammatory process involving the finer divisions of he bronchi and the tissue immediately surrounding them.

The right side has been affected slightly more often than the left with both the pneumonic process as well as the empyema. Bilateral nvolvement has been frequent. Figures given by 14 camps show hat 8.7 per cent of all cases of empyema were bilateral, and that the pneumonic process was bilateral in 13.5 per cent of all cases of mpyema.

The statistical relationship of empyema to pneumonia is inter-sting. From figures available from many camps it is found that 9.7 per cent of all cases of pneumonia developed empyema. But ven more interesting is the fact that whereas 14.5 per cent of all iagnosed cases of lobar pneumonia were associated with empyema, s many as 21.1 per cent of all cases of pneumonia following measles eveloped empyema.

Figures from 17 camps indicate that 9.2 per cent of all cases of mpyema were associated with a pericarditis. Peritonitis has been relatively frequent concomitant lesion. It has occurred in 6.4 per cent of all cases. Endocarditis and arthritis have been encountered ccasionally. Sinus involvement and meningitis have been ex-remely rare.

The bacteriological findings have shown considerable variation both in the examination of the various exudates and in the culture rom the blood.

In 19 of the 27 camps from which replies were received a hemolytic streptococcus has been found much more frequently than any other organism. For example, at Custer, with one exception (pneumococcus, Type IV), all the cases have shown a hemolytic streptococcus. At Dodge a similar organism has been found in all but two cases. At Lee it is stated to have been found practically without exception, and at Kearney it was present in 80 per cent of the cases. These findings, however, are to be contrasted with those at Sevier, where no streptococci were found, but pneumococci were present as follows:

	Cases.
Type 1	2
Type 2	1
Type 3	0
Type 4	39
Sterile	9

At Wheeler also the pneumococcus was found much more often as follows:

	Cases
Pneumococcus	85
Streptococcus	9
Staphylococcus	4
Negative	25

At Beauregard the pneumococcus was found in 100 per cent of the cases, of which 52 per cent were Type IV and 40 per cent Type I Other camps reporting chiefly pneumococcus infections are Hancock Jackson, Logan, Sheridan, and Travis.

Many cases presented a mixed infection of both streptococci and pneumococci. Other organisms reported to have been found occasionally are staphylococcus, bacillus influenzae, and bacillus col communis.

The blood cultures, for the most part, have been sterile, but in the great majority of cases, when an organism has been obtained, it has been a hemolytic streptococcus. Repeated cultures have often been necessary in order to obtain a growth, and as a rule the moribund cases have yielded a positive culture. Occasionally the pneumococcus has been recovered from the blood.

C. PRECEDENT DISEASE AND CLINICAL COURSE.

Only slight information about the clinical features of the conditio is presented in the replies; but certain facts stand out prominentl and are deserving of emphasis. These concern (1) the question o the relationship to a precedent measles; (2) the incidence of an antecedent infection of the mouth and respiratory tract; (3) the fulminan character of some of the cases.

Already in section 1 mention has been made of the frequency o empyema after measles in some of the camps and of the apparen influence which the association with measles has had upon the mor tality. It is impossible to get accurate statistical data on the relationship of measles to the development of empyema, because mos of the replies from the camps do not state the number of cases respectively, of measles and empyema. Probably, however, measle has been an antecedent in only a minority of the cases. Custer' report states specifically that measles has preceded the empyema i less than half of the cases and groups the apparent primary lesions in its series as follows:

	Cases.
Lobar pneumonia	4
Bronchial pneumonia	16
Admitted with empyema	4
Following measles	18
Following bronchitis	6

At Doniphan there were 230 cases of lobar pneumonia, with 23 cases of empyema and only 1 case of empyema after 6 cases of bronchopneumonia following post measles. At Lee over 50 per cent of the empyemas were considered primary without an antecedent measles. In a few camps, notably at Custer, it has been observed that many of the cases of empyema were associated with a tonsilitis or pharyngitis, and bronchitis is mentioned frequently as a precursor of the empyema.

The rapid development of the condition after a sudden onset has been sufficiently frequent to cause comment in a number of the camps. Occasionally within 24 or 48 hours after an onset with chill a pleural cavity has been found to be nearly filled with exudate.

D. DIAGNOSIS.

In general the chief reliance in the recognition of empyema has been placed upon the standard method of physical diagnosis and paracentesis. In many of the camps, however, in addition to these methods, the X-ray has been found to be of great value.

E. TREATMENT.

The high mortality in all the camps bears evidence of the generally unsatisfactory results of the treatment of the condition. On the basis of the usual experience with collections of purulent fluid in the pleural cavity, it apparently seems rational at first in all the camps to institute free drainage by opening the chest; but later as experience became greater with this unusual type of empyema, considerable doubt, in some of the camps at least, was cast upon the efficiency of instituting drainage through a permanent opening in all cases, particularly in early cases when the patient seemed to be overwhelmed with the toxemia. The report from Custer states that in some of the cases in which the fluid was small in amount and the patients were in bad condition only aspiration was performed without operation. At Camp Funston it was found by experience that early repeated aspirations are safer than immediate operation. The remarkable reduction in this camp after January 1 compared with the previous mortality is perhaps to some extent ascribable to this procedure. At both Gordon and Grant the conclusion has been reached that early operation is inadvisable. At the latter camp the serofebrinous fluid is removed by repeated aspirations, and the mortality has been only 15 per cent. At Greene an immediate operation is considered advisable, except in those cases in which the pneumonia is still in an active stage and is considered the chief cause of the symptoms. Jackson expresses its attitude as follows: "Determining the proper time for operation is of great importance in the prognosis. Do not operate when the fluid is thin, serous, and contains flakes of fibrin. Operate when the fluid is distinctly purulent, rather thick and creamy, and does not sediment quickly in the glass syringe used for diagnostic puncture. Too early operation is a questionable procedure in post pneumonic empyema as observed here." The mortality here has been relatively low (20.5 per cent). At both MacArthur and Shelby the advice is against an early operation. At Camp Sherman a disagreement exists between the medical and surgical staffs as to the advisability of operation.

It is interesting that when the average mortality of the camps which favor an immediate operation is compared with that of the camps which prefer repeated aspirations there is no appreciable difference discernable in the statistical results. For example, the average mortality of the camps which prefer an immediate operation is 31.8 per cent and that of the other camps is 31.6 per cent.

In regard to the type of operation to be employed, the majority o the camps have preferred the more radical procedure of rib resection At Devens and Kearney, it is stated that only thoracotomy has been performed. At many of the camps the operative procedure has varied considerably to meet the apparent need of the individual case. For example, at Dix, Funston, Jackson, Logan, MacArthur, Meade, and Sevier, thoracotomy without rib resection has been done in the bad cases, to be followed later, if necessary, by rib resection. At Logan thoracotomy has been preferred in cases with thin fluid and contatectomy in cases with thick, fibrinous fluid. At Lee, the procedure has been to make a preliminary aspiration if the heart is seriously displaced or embarrassed by pressure, to be followed in a few hours by thoracotomy, or a slow drainage by means of thoracotomy and a fluted rubber drain of dental dam.

The average mortality of those camps in which costatectomy has been a routine has been 31.3 per cent; and the average mortality of the camps which have employed simple thoracotomy exclusively or primary thoracotomy, followed later by rib resection, has been 39. per cent. In practically all the camps, with few exceptions, local anesthesia has been used systematically.

The reports on the use of antistreptococcus serum are exceedingly scanty. In general, its use has been limited to only occasional cases in a few of the camps.

Postoperative continuous negative pressure has been used in only one camp (Kearny) and good results are reported to have been obtained with it.

Rather extensive use has been made of antiseptics of various kinds and irrigating solutions in the pleural cavity. At seven camps, however (Dix, Doniphan, Hancock, Meade, Sheridan, Upton, and Wadsworth), no solutions have been used. The substances most often employed have been the newer chlorine-containing antiseptics. Chief of these has been the so-called Dakin's solution, which has been tried in 17 of the camps. In general, it is stated that no remarkably beneficial results were obtained with Dakin's solution or any other antiseptic except to diminish the odor of the discharge. Three camps, however (Kearney, Logan, and McClellan), are enthusiastic in their reports on Dakin's solution. At Dodge and Funston, it was considered that the use of Dakin's solution diminished the discharge and at Gordon, it was thought that the patients who received Dakin's solution appeared less toxic than the others. Sherman emphasizes the point that the results with Dakin's solution are not so good if the drainage is not free, and at Cody it was found that in a few cases the temperature was elevated after its use. At Lee, it was considered that there was no apparent clinical effect of 16 cases, in which dichloramine–T was used. At Dodge, dichloramine–T was used in one case and was followed by complaint of pain. At Travis, after an extensive trial with a number of antiseptic solutions (including Dakin's), it was decided that the most satisfactory procedure was washing the cavity with saline solution followed by the injection of 2 per cent formalin in glycerine. Autogenous vaccines at Beauregard were found to be of no appreciable benefit.

Prophylactic measures have, in general, been of two kinds (1) the use of antiseptic mouth washes, gargles, and sprays in the measles cases, and (2) the insolation of the empyema cases. In all but six of the camps (Dix, Dodge, Doniphan, Grant, McClellan, and Wheeler), some sort of antiseptic mouth wash or spray has been used. Various preparations have been used, chiefly Dobell's solution, or some other mild antiseptic. At Custer, in one ward of 58 cases of measles, Dakin's solution was used as a nasal and throat spray twice daily, and a control ward received no spray. No difference in the incidence of complications after measles was noted, but the number of treptococci in the throat was decreased in the treated cases, as shown by biweekly cultures. In sprayed cases not in the hospital the same decrease in the number of streptococci in the throat was noted. A nasal spray of dichloramine–T has been used at Greene, Shelby, Upton, and Wadsworth. At Upton, however, it was discontinued "on advice of specialists." No reports are given as to its effects in any of the camps which have employed it. At Funston, streptococci has been given to the measles patients on the first, fourth, and eighth days after admission to the hospital as a prophylactic measure against measles-pneumonia.

Many of the camps have practiced insolation of the empyema cases after operation. At Beauregard, Cody, Custer, Dodge, Doniphan, Funston, Gordon, Grant, Hancock, Jackson, Kearny, Lee, Meade, Sevier, Travis, and Wheeler, attempts have been made to group the empyema cases either in separate wards or separate buildings. In addition to this, at Cody, Custer, Dodge, Gordon, Grant, Kearny, Logan, McClellan, Meade, and Shelby, the cubicle system of housing either in the separate wards or on the porches has been employed, and an attempt has been made to provide each patient with 1,000 cubic feet of air space. At Custer, the ward surgeons, nurses, and attendants have worn gowns and caps; and at Grant, masks and gowns have been worn not only by all the hospital personnel connected with these cases but also by the ambulatory patients. At Wadsworth, "semi-insolation in small rooms in the surgical wards" has been used. At Upton, such patients have been segregated at one end of the wards, head to feet, because of lack of space to provide separate wards.

The division of surgery has actively participated in conference on reconstruction, furnishing what counsel and judgment seemed to them to be wise in mapping out this intricate and important line of activity.

The division has kept in very close touch with the problem of antiseptics, both through personal contact with the Rockefeller

Institute course and through the sending of the general surgical personnel in attendance upon this course.

In a literary way the division has been active along two or three different lines. In the first place, it has an integral representation upon the board of publications; it has edited a manual on "Surgery of the Zone of Advance"; it has likewise edited a manual on "Lessons from the Enemy"; and it has seen to it monthly that the "Review of War Surgery and Medicine" carried to the surgical personnel digests of the latest approved surgical practices of our allies in the war zone. This monthly Review contains medical laboratory and various specialty subjects which are necessary for the entire personnel of the Medical Corps. The division was allowed, up to June, to distribute only 500 copies of the Review per month, but from June on an allotment of 5,000 per month has been secured.

There is being prepared under the direction of the division of general surgery a "Manual of Applied Surgical Anatomy," which will furnish in diagrammatic, easily visualized form, with a minimal amount of text, the essentials of anatomy.

VIII. Division of Military Orthopedic Surgery.

1. ORGANIZATION OF WORK.

The need of adequate preparation for the rehabilitation of the crippled soldier was recognized by the orthopedic surgeons of this country as early as the spring of 1916, when the two national organizations each appointed a committee on preparedness, the work of the two committees being coordinated through the choice of a common chairman. This made it possible, on our entrance into the war, to present a comprehensive plan for the organization and equipment of orthopedic hospitals for reconstruction purposes as well as to point out the lines along which subsequent study of the problem should be made.

In May, 1917, the chairman of the above committees was commissioned and sent abroad to study and report on conditions there. In July one officer, and shortly after a second one, was assigned to the Office of the Surgeon General for the study and coordination of the various activities in this special branch. Later in the same month an orthopedic advisory council was formed.

The report of the officer detailed to the study of the various phases of reconstruction work in Europe was made on his return in August and covered the location and equipment of hospitals, facilities for curative workshops and industrial reeducation, the selection and manufacture of splints and appliances, and the placing in employment of the disabled. Since this study had shown that a very large percentage (from 30 to 40 per cent) of the casualties of the present war had required special orthopedic treatment and that a large part of these, when so treated, had been restored to military usefulness, a division of military orthopedic surgery was created, a classification of conditions to be considered orthopedic, this being practically the same as that in use by the British Government.

Recognizing the value of the curative work as developed in the orthopedic hospitals in England, a vocational educational committee was formed, and as a result of its recommendations the division of special hospitals and physical reconstruction was authorized, whose function it should be to establish a broad plan of reconstruction comprising all departments of medicine and surgery involved in the problem. Since then the division of military orthopedic surgery has confined its work to professional problems.

2. PERSONNEL.

During the year 670 officers have been assigned to active duty 148 of these having been sent overseas and 88 attached to units already mobilized.

3. INSTRUCTION.

Special training has been given to 467 officers. This training has consisted of three kinds: (1) An elementary course chiefly in foot care and splint work; (2) an intensive course in fundamental principles of about six weeks' duration, given at the Army Medical School and at various other university centers; and (3) postgraduate work in orthopedic hospitals.

4. PUBLICATIONS.

The following books and articles have already been published by the division (others are in press):

BOOKS.

Manual of Orthopedic Surgery (War Manual No. 4) (revision now in press).

Manual of Minor Foot Ailments (two editions, the second including a section on shoe fitting).

ARTICLES.

"Splints for use in the advanced zone." (War surgery in the zone of advance.)

"After-care of nerve injuries." (For the division of head surgery.)

"Relation between the amputation and the fitting of the artificial limb."

"Temporary artificial limbs." (These two appeared in the Military Surgeon and reprints were secured for distribution to Army surgeons.)

"Foot care in military service." (Published in the Marine Corps Gazette.)

"Practical points in the use of immobilization in war surgery."

"Nonoperative aspect of the treatment of nerve injuries."

"Fixation methods for fracture of the spine." (Published in the Review of War Medicine and Surgery.)

5. SPLINTS.

It seemed wise to choose the splints already tested in military work by the British; these were simple in design, limited in number, and well adapted to meet the military demands. They were officially adopted, therefore, with the approval of the division of general surgery, in September. A few minor changes in construction were made in May, 1918, to increase efficiency and facilitate production.

6. CAMP ACTIVITIES.

The promotion of foot efficiency has always been regarded by the division as unquestionably its most important contribution to the winning of the war. For this reason the greatest insistence has been laid from the first on the work of the orthopedic surgeons in the camps and particularly upon the problem of prophylaxis. Systematic instruction in and treatment of orthopedic affections of a military nature, especially those of the feet, have been carried out by the attending orthopedic surgeons assigned to the various camps and under the direction of the supervising orthopedic surgeons in charge of the different camp groups. Arrangements have been made to utilize the services of chiropodists as far as possible in the treatment of minor foot ailments. Special attention has been given to all the phases of the shoe problem, and the constant endeavor has been made to cooperate to the fullest extent with the Quartermaster's Department in the supply and fitting of shoes.

7. ACTIVITIES IN THE AMERICAN EXPEDITIONARY FORCE.

The work abroad is developing rapidly and along much the same lines as in this country. The following points deserve special mention. Through the cooperation of the general and the orthopedic surgeons, a splint board was established in September, 1917, and the splints to be used limited to seven standard types; a manual of splints and appliances was also issued.

As a further step in standardization the orthopedic surgeons have been given supervisory control of splint treatment. A training battalion has been organized to facilitate the care of the physically defective, particularly those with weak feet, and is now working efficiently. By this means a large number of defectives have already been returned to the line. A further advance in foot care has been made by the assignment of orthodpedic surgeons for this work to the division. The first orthopedic unit has already been sent abroad, and the plans for the hospital are well under way. In these and other ways the work is being so coordinated as to insure continuity of treatment.

8. RECONSTRUCTION WORK.

What may be rightly designated as our first step in the actual work of reconstruction was taken shortly after our entrance into the war by the organization of a group of 20 well-trained orthopedic surgeons, at the request of the British, to assist them in carrying on this work in England. A second group of over 40 was sent in October, and a few others since then. This has proved of great value in the training and development of our men for the work both in France and at home.

Cases requiring orthopedic reconstruction develop during the training period as well as in combat. Plans have been made to include both, and the work is now under way at the Walter Reed and other hospitals.

The artificial-limb problem has been studied carefully from every aspect. An experimental department was authorized in November, 1917, and the work along this line is now well under way. The most recent views on the relation between the amputation and the fitting of the artificial limb have been published and distributed, as have also the details of construction of temporary plaster limbs. An artificial limb of modern type, but less expensive construction, which is adjustable both for length of limb and size of stump, and which can be manufactured in large quantities, is now being thoroughly tested in the department established for these cases at the Walter Reed Hospital. It is proposed to use such an appliance as a provisional one to enable the soldier to return to duty or to take up vocational training at a very early date before the stump is in suitable condition for the application of a permanent limb. Such an appliance will also be of advantage in case the number of the amputated should be very great. A work appliance for the arm has now also been devised by the department, and arrangements are being made to have it manufactured for our use. The artificial-limb industry in this country has been studied with a view to rendering the manufacturers all the assistance possible in the standardization of methods and equipment, the securing of supplies, and the training of workmen. Every effort has been made to keep in close touch with the manufacturers, both individually and through the official representatives of the Artificial Limb Makers' Association of the United States.

IX. Division of Surgery of the Head.

1. SUBSECTION OF OPHTHALMOLOGY.

1. *Procuring of personnel.*—Additions to the lists of ophthalmologists available for service originally secured by the subcommittee of ophthalmology have been obtained by (*a*) personal efforts on the part of the officers of the section, (*b*) by calling on those who in their questionnaires originally returned have offered service "at a later date," or "in the event of emergency," and (*c*) by a systematic daily examination of the papers of men seeking admission to the Medical Reserve Corps, which contained notice that they were "qualified in ophthalmology," and obtaining from the personnel division permission to retain them for ophthalmology.

In October, 1917, officers of this division were ordered overseas to inspect the hospitals of the American Expeditionary Forces as to their facilities for surgery of the head. This inspection included all except three of the American base hospitals in operation at that time (from Nov. 19, 1917, to Jan. 31, 1918), three Red Cross hospitals, and one naval base hospital, and by permission obtained through military channels a number of base and general hospitals in the British service and one French hospital sector from the base to the front. Opportunity was also afforded to visit general and special hospitals in England and to study the methods of caring for blinded soldiers in France and England, and finally, to investigate the best means of supplying our soldiers with spectacle lenses and the advantageous places for establishing the optical units. Complete reports of this work were made to the chief surgeon in France and to the Surgeon General and are on file.

Equipments.—During the year constant attention was paid to the standardization and selection of instruments, material, and facilities for the subsections of ophthalmology in the various base hospitals, and an endeavor was made to list the minimum quantities of drugs regarded as necessary for eye work per quarter in the base hospitals.

The plan originally in operation whereby the enlisted men secured, after proper examination by the ophthalmologist on duty in the subsection of ophthalmology, a standard pair of spectacles through the post exchange of each cantonment, was modified in this respect, that the glasses are now furnished free of charge on prescription filled by selected firms of opticians (G. O. 35, par. 7). Wherever required, an enlisted man with the training of a practical optician was attached to the subsection of ophthalmology of the base hospital.

The mobilization of one central optical unit and eight auxiliary units was completed, and on order of Gen. Pershing these units were sent overseas under the command of Maj. Allen Greenwood, Medical Reserve Corps, who was in special charge of this work, and are now in satisfactory operation. In addition to ground lenses, glass and grinding machines, the equipment of these units included a quantity of artificial eyes.

An investigation instituted by the subsection of ophthalmology, with the aid of Dr. Day of the geophysical laboratory and Bureau of Standards, resulted in the demonstration that glass can be made in this country suitable for the manufacture of artifical eyes. Such glass has been produced, and from it artificial eyes have been manufactured.

2. SPECIAL BASE HOSPITAL 115.

Pursuant to the authorization of the Surgeon General for the development of a base hospital particularly devoted to surgery of the head, to be established in France, Special Base Hospital No. 115 was organized at Cape May in February, 1918, and during the year much attention was given to its equipment and personnel. The call for this hospital was received on May 24, 1918, and the arrangements entirely completed by June, 1918. Now mobilized at Cape May, its personnel and equipment are ready for transportation overseas.

3. SECTION OF OTOLARYNGOLOGY.

PROCURING OF PERSONNEL.

The first activity of the section of otolaryngology after the formation in the office of the Surgeon General of the division of surgery of the head was to continue the work already started by the subcommittee of otolaryngology of the Council of National Defense and apply the results of this committee's labors. The chief business of this committee consisted in sending out questionnaires, filing and indexing them when they were returned, distributing the application papers for the Medical Reserve Corps of the Army, and advising on the rating of the applicants as their papers passed through the Surgeon General's office. The questionnaries resulted in a catalogue of the otolaryngologists of the country who were available for immediate or deferred service. In most cases the questionnaires gave sufficient data for rating the applicants. Where, however, there was doubt application was made to members of the profession in each State who had been selected to act as State consultants.

The personnel of the various cantonment base hospitals was selected from these men and assigned to duty. During the year that has elapsed since the formation of the division of surgery of the head the securing of adequate personnel and the attempt to place it efficiently and agreeably has been the main work of the section of otolaryngology. In order to bring this about much correspondence has been carried on with otolaryngologists seeking information about the service and many consultations have been held in the

Surgeon General's office with physicians whose desire to do their part brought them to Washington for advice.

In May, 1918, a circular letter was sent to 100 otolaryngologists who a year ago expressed their willingness to enter the Medical Corps at a later date should their services become necessary.

Coincident with the enrolling and assigning of otolaryngologists to the base hospitals in this country a tentative list of assignments for base hospitals abroad was drawn up.

SPECIAL BUILDING.

A special building for the section of surgery of the head was designed jointly by the section of otolaryngology and the section of ophthalmology for use in this country.

The special hospital at Cape May, called No. 115, has been assigned its personnel in otolaryngology and its special equipment in this line. The permanent staff at Cape May also has been assigned its otolaryngological staff.

EQUIPMENT.

A working set of instruments for the section of otolaryngology was prepared and the instruments supplied to the base hospitals. This list has recently been modified and extended and standardized. An instrument list for a special head hospital abroad, should one be called for, was drawn up also, and the section of otolaryngology took a proportionate part in planning the special hospital building for the head hospital abroad.

STANDARDS FOR EXAMINATION OF REGISTRANTS.

In connection with the examination of the registrants of the draft the standard of hearing for admission to the Army was revised, and the tests for malingerers amplified. Later the regulations for medical advisory boards, as far as they concerned otolaryngology, were revised and rearranged.

An abundant supply of instruments and teaching paraphernalia has been recommended for the use of the school. It is hoped that this school will be allowed to develop, as it will fill a large place in rating men in the specialty of otolaryngology and in acquainting them with modern methods of diagnosis and treatment.

4. SECTION OF PLASTIC AND ORAL SURGERY, JULY 24, 1917, TO DECEMBER 30, 1917.

ORGANIZATION OF THE SECTION OF PLASTIC AND ORAL SURGERY, WITH DEFINITION OF ITS FUNCTIONS.

This was started in July, 1917, by the joint committee on head surgery, Council of National Defense, with the approval of the Surgeon General.

It was decided that the surgeon in charge of oral surgery should have the care of injuries and surgical diseases of the mouth and its essential structures, including the bony framework and soft tissues of the face, and also of the neck when the major part of the injury is situated above the clavicle, with the exception of certain injuries and surgical diseases coming within the province of the ophthalmologist, the otolaryngologist, and brain surgeon.

FORMULATION OF PLANS TO SECURE THE SERVICES OF PERSONNEL FOR THE SECTION.

Letters were sent out to over 200 of the more prominent surgeons, asking for suggestions as to individual men whose training and practice are such as to make them especially fitted for the section of plastic and oral surgery. At the same time inquiries were started as to available dental oral surgeons. Letters and questionnaires were sent to surgeons and dental surgeons possibly suited to work with the section. Up to the end of the year 1917, 147 surgeons and 117 dental oral surgeons had been selected and classified for this work.

PUBLICATIONS.

After a complete survey of the war literature a consultation was held to decide the most effective means of placing this at the disposal of the men who were to do the plastic and oral surgery. It was decided to incorporate this material in the third edition of Blair's "Surgery and Diseases of the Mouth and Jaws," because, on the one hand, time did not permit a full exposition of the subject in a special manual, while, on the other, it would be of less utility and somewhat awkward to attempt these observations while disregarding the general principles upon which they are based.

Each hospital organized for service in this country or abroad is to be furnished with a copy of this book.

SPECIAL COURSES OF INSTRUCTION.

Three schools, with special courses of instruction in plastic and oral surgery for officers assigned to the section were authorized by the Surgeon General and established at Washington University, St. Louis; University of Pennsylvania, Philadelphia; and Northwestern University, Chicago.

Some of the personnel of the section have also been sent to special courses at the Rockefeller Institute, New York, and at the Mayo Clinic, Rochester, Minn.

INSTRUMENTS AND EQUIPMENT.

The section worked continuously upon the selection, simplification, and standardization of instruments and equipment to be used by the men who are to do this work abroad.

Both on general surgical principles and upon facts gleaned from the war experiences of others the section of plastic and oral surgery has been convinced that if these jaw cases could receive early effective treatment, much suffering, convalescent time, and not a few lives could be saved, and it is making every effort to place members of these oral surgical units in the most advanced operating stations and provide them with proper equipment for instituting early care of the cases, a plan that has received the sanction of the Surgeon General. To facilitate the work of these men at the advanced stations, a simple, easily applied, universally applicable jaw splint for temporary use is being worked upon.

5. SECTION OF PLASTIC AND ORAL SURGERY, JANUARY 1, 1918, TO JUNE 30, 1918.

PROCURING OF PERSONNEL.

Additions are gradually being made to the personnel of the section from newly commissioned officers in the Medical Reserve Corps and by the association with them of members of the Dental Reserve Corps. The total number is not increasing rapidly owing to losses incurred through transfer of officers to other divisions, unsuitability for the work, and military emergencies.

6. SECTION OF BRAIN SURGERY.

The section of brain surgery, division of surgery of the head, was established in the Office of the Surgeon General, July, 1917, the work beginning with the assignment for duty of a neurosurgeon, who was later commissioned in the Medical Reserve Corps.

PERSONNEL.

Two hundred and fifty medical officers were authorized for this section and steps taken to collect the group. Questionnaires were mailed to many representative surgeons throughout the country as well as requests to the leading general hospitals to forward the names of members of their staff interested in brain surgery or having a large casualty practice. These surgeons were then sent a questionnaire, information being requested if they would be willing to be classified in this section. All answering in the affirmative were to be retained upon acceptance of commission, or if already commissioned an exemption was placed on their card in this office. With the assistance of the medical men appointed as advisors for the various districts, certain of the surgeons answering the questionnaires were selected to be given instruction in neurosurgery. The first school was organized at Philadelphia, University of Pennsylvania.

CLINICAL, NEUROSURGICAL.

In addition to the regular assignments to the base and general hospitals in this country, officers have been assigned temporarily at hospitals for consultation.

September 24, 1917, the first edition of "War Surgery of the Nervous System" was published and copies sent to the various hospitals and officers retained by the division of brain surgery. This publication was a treatise on the anatomy, physiology and surgery of the nervous system, combined with a survey of the literature on brain surgery of the present war. February, 1918, a revision of the first edition of "War Surgery of the Nervous System" begun.

LABORATORY, NEUROSURGICAL.

The Army neurosurgical laboratory was established in order to investigate certain problems arising from infections and injuries of the central nervous system in war. The first problem confronting the investigating staff was the production of experimental infections and lesions comparable to or identical with those of the war zone.

The second task was the testing out of previously recommended therapeutic measures and the subsequent modification of the procedures to effect a cure of the experimental condition.

There have been produced in this laboratory during the past six months, experimental lesions of the central nervous system as follows:

(*a*) *Meningitis.*—This generalized infection of the central nervous system has been brought about in three ways: (1) The direct injection of organisms into the subarachnoid space; (2) by intravenous injection of organisms followed by release of cerebrospinal fluid; (3) by massive intravenous injections of certain very virulent bacteria. The lesion produced is identical with the condition in man, and the clinical picture of the disease analogous. Both acute and chronic forms of the infection have been caused, the character being dependent upon the dosage and the strain of the organism used.

(*b*) *Abscesses of the brain.*—These have been caused by: (1) The direct injection of pyogenic bacteria into the cerebral cortex or (2) the penetration of the skin, skull cap, etc., by an instrument giving a wound similar to that of a low-velocity missile. Acute and subacute forms have been occasioned, some remaining a local infection and others developing into a meningitis. The experimental lesion is wholly similar to that in man.

(*c*) *Sterile injuries to the brain.*—These have been caused in different ways in order to give histological control both for the pathological conditions and for the subsequent therapeutic repair of cerebral defects.

(*d*) *Hydrocephalus* (*internal*).—By the intraventricular or subarachnoid injection of certain granular materials, an internal hydrocephalus, comparable in every way to that following meningitis in man, has been caused both in adult and young animals. The relief of hydrocephalus and increased intracranial tension presents one of the greatest problems in neurological surgery.

Therapeutic measures for the relief of the experimental infections have been undertaken, as well as procedures looking to the localization of an infection to an abscess. Irrigation of the subarachnoid space with bland solutions have resulted in the apparent cure of a few animals, to which lethal doses of bacteria had been administered within the nervous system. In the majority of cases, such irrigations have merely, on single administration, resulted in a prolongation of life of about 100 per cent as compared to the control.

The toxicity of certain antiseptics within the subarachnoid space has been determined on animals. No evidence has been brought forward as yet to demonstrate beneficial effects of these chemicals when used in doses below lethal concentration. It is doubtful if antiseptics will yield benefits when used in generalized infections of the nervous system.

In experiments concerning the repair of the bony skull after injury, the possible use of fresh sterile bone, of boiled bone, of autoclaved bone and of formalinized bone has been demonstrated. All varieties mentioned are capable of yielding firm union with the rest of the skull.

The histopathological control of the various experimental lesions in the animal has been carried along. Likewise, some histological studies have been made in this laboratory on animals with experimental shell shock.

X. DIVISION OF NEUROLOGY AND PSYCHIATRY.

The importance of nervous and mental disease had always been recognized by the medical department and medical officers had been regularly detailed to St. Elizabeths Hospital for training in the principles and practice of psychiatry. But before the war the Army was too small and too much spread out to render it possible to establish this highly specialized branch of medicine as an integral part of the medical policy. The experiences of the past year, however, have shown the military and economic necessity of excluding from fighting forces nervously undependable and unreliable persons, and it would seem now to have been definitely demonstrated that neuropsychiatrists should constitute about 3 per cent of every Army Medical Corps, and that they should be particularly well represented at all points of enlistment.

The chief functions of a neuropsychiatric department are therapeutic and preventive; of these the therapeutic is the least important from a purely military point of view, because the number of soldiers who break down nervously under service conditions and who can be returned to duty in a reasonable length of time is small as compared with those who break down for purely physical reasons. There are certain nervous episodes, certain intoxications, notably delirium tremens, prone to make their appearance during mobilization, which rapidly disappear under treatment and leave the patient apt for military life. But in an army under training the number of soldiers admitted to base hospitals who after treatment return to full duty is regrettably small. This statement must be modified in so far as the neuroses, "shell shock," of the present fighting is concerned. These nervous breakdowns show a satisfactory percentage of recoveries provided certain fundamental conditions are fulfilled. These conditions are based on the fact that a sound man nervously shaken has a much better chance of getting well promptly if the circumstances of his environment are shaped to convince him that his injuries are neither serious nor permanent. As the French were quick to perceive, this result is obtained primarily by an administrative policy which will not recognize neurosis as a cause for discharge from military service, and which insists that all such cases be kept away from the hospitals where the "gros blessés" are sent. It insists further that the treatment of such cases, which is largely a treatment of brief rest, encouragement, and reassurance, be carried on near the front. These arrangements combat from the outset the idea in the mind of the injured soldier that the injury is of a disabling character. Such an idea would have scant chance of becoming a compelling force in a soldier's conduct if it could be proclaimed throughout an army that the war neurosis was not a condition which entitled the soldier to a pension. It might not be wise to recommend such a regulation at this time, but it is believed that such a regulation, while it would work injustice to some, would reduce the severe and protracted war neuroses to almost negligible quantities and in the end would be a humane measure.

With the exception of the war neuroses, the chief military importance of the therapeutic activities of the neuropsychiatric branch of the medical department is the increased effectiveness in evacuation it insures. The prompt diagnosis of cases, and clinically wellfounded recommendations as to the proper disposition of them, results in a speedier evacuation than is possible otherwise, and leaves available more hospital beds.

From a purely humanitarian standpoint the treatment of nervous and mental disease has proved as satisfactory, if not more so, than the treatment of similar conditions in civil life. The regularity enforced by army conditions is an excellent tonic for psychoneurotics under treatment. The treatment of the insane has been particularly successful. It was evident from the outset that the insane could not be properly taken care of in the general medical services of the cantonment hospitals. Wards were established at these hospitals for temporary care, but arrangements were made by means of which soldiers and officers presenting the symptoms of insanity could be transferred promptly to special centers, which centers were located at San Francisco, San Antonio, Atlanta, Des Moines, Washington, and Buffalo, points of densest military population. These centers serve as psychopathic hospitals, where patients are retained as long as it appears there is a chance for their recovery. The personnel, both commissioned and enlisted, was selected by reason of their experience with patients of this class. The equipment with hydrotherapeutic and electrotherapeutic apparatus is of the most approved character. The actual operation has been gratifying in the extreme. A large number of patients have been returned to their friends or to independent life without having been officially regarded as insane. As is well known, the military psychoses, if properly treated, have a short clinical course and a favorable outcome, which enables a hospital to handle a large number of patients. Fort Porter, at Buffalo, for example, with a capacity of 155 beds, can dispose of 1,200 patients a year. A large number of the States have kindly cooperated with this office in receiving back insane recruits from their States.

But the real value to an army of neuropsychiatrists is the prevention of the occurrence of nervous and mental disease among troops, a prevention which is accomplished by the barring from enlistment of all men actually suffering from these limitations or strongly predisposed to them. This group which comprises, as established by civil statistics, from 1 to 5 per cent of the total male population in draft age, is composed of the same class as the immigration laws bar from admission to the United States. The diseases or conditions which handicap them, as established by the statistics collected by the military psychiatrists of the Army, in order of frequency are feeble-mindedness, epilepsy, insanity, and psychopathic constitutional make-ups, which make it as difficult for the person so made up to succeed as it is for a clubfooted man to walk evenly. Alcoholism is less prominent than it once was in armies, and, with the exception of syphilis of the central nervous system, organic nervous diseases are so rare as to be practically negligible quantities. Cases of the above character the neuropsychiatric boards have recommended for rejection or discharge, and the actual discharges made on recommendation of general disability boards for these causes has varied from 1 to 2 per cent. The rapid influx of registrants of the second draft has overtaxed the personnel, and the examinations have been less thorough than for the first draft.

The highest percentages of disqualifications have been found at the recruit-depot posts. It would thus seem that a cross section of American young men, as represented by the draft army, contained a smaller percentage of undependable persons than are found in an equal number of volunteers. This fact may have some bearing on the relative value of services en masse which are offered and those which are required by law. An indication of the extent of its military and economic advantage attained by keeping out of the Government service those who would, with considerable certainty, break down in the service and become a charge on the Government, is furnished by the following: St. Elizabeth's Hospital in Washington is the one Government institution permanently authorized to give custodial care to the insane of the military services. It is, in a way, a barometer of the mental health of the Army. Admissions to it from the various military posts give a fairly accurate idea of the extent of mental instability among the troops. From previous experiences, it has been estimated that the mobilization of a million men would involve the commitment to St. Elizabeth's, or to some similar institution, of at least 2,000 soldiers. As a matter of fact, the number of such custodial cases resulting from the first million was 177. Neither were they sent back to State hospitals. The total of admissions (for the first million) to State hospitals was 300. In other words, there were produced in approximately eight months, from the mobilization of an army of 1,000,000, instead of 2,000 to 3,000, only 477 cases. There is little reason to doubt therefore, that the neuropsychiatric examinations served a double purpose. On the one hand, they have kept out of the Military Establishment men who would become charges upon the Government without having rendered it material service, and, on the other hand, from the humanitarian standpoint, it seems clear that a smaller number of soldiers became insane, than has been the case in armies when no effort has been made to exclude the unstable. (It is pertinent to remark in this connection that the number of delinquents has fallen much below what was expected.) It would seem, therefore, that military service actually initiates mental unbalancement in predisposed persons which would not occur if such service were not required. Contrary to the general rule of the improvement in health of recruits under training, members of this particular class do not improve, but, on the contrary, a potential condition becomes actual.

Another function of psychiatrists has been to assist in the attainment of military justice. As in military life, perhaps even more than in civil life, a goodly proportion of offenders, expecially in such offenses as desertion, stealing, persistent failure to obey orders, are mentally affected in some way to a degree that they can not reasonably be held responsible for their delinquencies. In such cases punishment is not corrective, and consigning such irresponsible persons to prison for long terms has no purpose and commits the Government to wasteful expense. In the consideration of cases of this character, either for the purpose of determining the advisability of trial or as witnesses at courts-martial, the psychiatrists have been frequently called upon by judge advocates. It is hoped that this cooperation will become progressively closer.

The administrative arrangement of the neuropsychiatric work consists of a division of neurology and psychiatry in this office.

This division initiates the orders by which the officers proceed to their various stations and suggests the duties for which the individual officers are best fitted. These serve in base and other hospitals and as examiners on neuropsychiatric boards which are formed from time to time as occasion arises. In January, 1918, the General Staff created the position of division psychiatrist, one for each tactical division, with rank of major. The official attachment of these officers is to one of the field hospitals, but they generally have been given a desk in the office of the division surgeon, from which point they can operate most effectively. It is their duty to keep in touch with the mental state of the command, to further the prompt evacuation of the unfit and to see that, proper treatment is provided. These officers come to know the personnel well and are in position to tell which officers or men are the least likely to withstand the great strains of modern warfare. Reports from the expeditionary force indicate that they have been a great assistance in preventing the occurrence of the war neuroses by their knowledge of the troops with whom they have already served for months during the training period.

In addition to the division assignments, neuropsychiatrists are, detailed to base, special, and evacuation hospitals for over-seas service and are also sent as casuals and in replacement, to be recommended for assignment by the senior consultant in psychiatry, American Expeditionary Forces. Practically all of the officers, under the general direction of the division of neurology and psychiatry, are commissioned either in the Medical Reserve Corps or the National Army. They were men who had already attained distinction in their specialty in civil life or more recent graduates who had taken up this specialty only a short time before war was declared and who perfected their special knowledge through their military experience. It would be difficult to speak too highly of the way all have conducted themselves under their new conditions. They have shown themselves eager to learn and willing to forget what they used to know, when former knowledge or ways of doing proved incompatible with the military situation.

XI. Division of Psychology.

Committees of the American Psychological Association and the psychology committee of the National Research Council prepared, between April and August, 1917, various psychological methods for the selection and classification of recruits in the Army and Navy. In August, 1917, on recommendation of the National Research Council, certain methods were accepted for trial which had been devised especially for the psychological examination of men enlisted in the United States Army. The chairman of the psychology committee of the National Research Council was appointed, on August 17, major in the Sanitary Corps to organize and direct this new branch of the service for the Medical Department.

During the initial development of this service the chief of the division worked under the immediate administrative supervision of the chief of the division of neurology, psychiatry, and psychology. Plans were speedily prepared and the necessary authorization secured from the Secretary of War for thorough trial of the proposed methods in four National Army cantonments. For this work 16 psychologists were commissioned first lieutenants in the Sanitary Corps and 24 others were given civil appointment by special authorization of the Secretary of War. The psychological staff of each camp consisted of 10 men.

Between October 1 and December 1, 1917, nearly 100,000 drafted men, students in officers' training camps, and officers of camps or divisions were examined. In December the work was officially inspected by an officer of the Medical Corps. The reports of this inspectional officer supplemented importantly the statistical data supplied during progress of work. As the results of psychological examining indicated clearly the value of the work for the elimination of men mentally defective, the balancing of organizations in mental strength, the classification of men for the assistance of personnel officers in the camps, and the indication of men of exceptional intelligence to be charged with special responsibility or sent to officers' training camps, and as all reports of the inspector were favorable, in December, 1917, the continuance and the extension of psychological examining to the entire Army was recommended to the Secretary of War. This recommendation, after careful inquiry concerning the value of the work by the training committee of the War College division of the General Staff, was approved by the Secretary of War, who directed the Surgeon General to prepare a plan for the proper conduct of the proposed work.

A comprehensive plan was promptly prepared by the staff of the section of psychology, division of neurology, psychiatry, and psychology. This plan provided for suitably trained personnel, special psychology building in each camp, and necessary apparatus and printed materials. It was fully approved by the Secretary of War January 19, 1918. This office was authorized to create a division of psychology and to put the plan of psychological examining into effect.

A school for military psychology was immediately organized in connection with the medical officers' training camp, Fort Oglethorpe, Ga., in which a maximum of 100 student officers and approximately 100 psychologists enlisted in the Medical Corps could be trained simultaneously during a period of two months. This school was opened February 4 with Capt. William S. Foster, Sanitary Corps, National Army, as senior instructor. Between this date and July 1, 1918, approximately 70 officers of the Sanitary Corps and 250 men enlisted in the Medical Corps were given special training in military psychology.

Plans for suitable psychology building were prepared and duly submitted to the Quartermaster General. Subsequently the equipment committee of the General Staff disapproved the expenditure for these buildings pending congressional appropriation for the purpose. The Secretary of War directed that existing buildings be assigned for psychological examining in most of the divisional training camps.

The necessary apparatus and printed materials for the examining of 500,000 soldiers were speedily prepared, and during April and May psychological examining staffs were organized in 25 National Army and National Guard camps. During the month of June additional apparatus and printed materials were manufactured for the examining of 1,000,000 soldiers.

On July 1, 1918, psychological examining was in progress in 28 Army camps and in 3 general hospitals. Seventy-nine officers of the Sanitary Corps were on duty in these stations and in the division of psychology, Surgeon General's Office. Approximately 100 noncommissioned officers and privates of the Medical Corps especially trained in military psychology had been assigned to duty in examining stations, and somewhat more than 100 were in training at the school of military psychology, Fort Oglethorpe. Up to April 27, 1918, when new methods were put into use, approximately 140,000 soldiers had been examined. On July 1, 1918, 600,000 had been examined. Of this number slightly more than one-fourth of 1 per cent had been recommended by psychological examiners to psychiatrists for discharge because of mental deficiency, and about one-half of 1 per cent had been recommended for assignment to service organizations or development battalions because of mental inferiority.

Psychological examinations which were originally conducted in wards of base hospitals are now made in psychology building located usually in the depot brigade. In this building drafted men are examined promptly on reporting to camp. Their intelligence ratings are immediately transmitted to the personnel officer of the camp. All cases of mental deficiency or those for which psychiatric examination is indicated as desirable are referred to the psychiatrist.

The aim of the division of psychology is to develop a psychological center in each military training camp to which all psychological problems of military assignment, training, discipline, morale, and intelligence may be referred by officers of the line or staff. Such a center exists in 25 camps, and the service is being extended as rapidly as available personnel permits.

XII. Air Service Division.

The office of the chief surgeon, air section, Signal Corps, was established by War Department, Order No. 207, September 6, 1917. From the beginning, the medical division of the air section has developed rapidly, and at the present has the following personnel:

Commissioned personnel, United States, including Dental Corps and Sanitary Corps officers	971
Commissioned personnel, overseas, including Dental Corps and Sanitary Corps officers	303
Enlisted personnel, United States	3, 730
Enlisted personnel, overseas	1, 114

One of the first duties of the chief surgeon's office was the selection of the flying personnel of our Army. For this purpose physical examining units were organized, through which all applicants for aviation were examined and selected or discarded, according to the individual fitness for this branch of the service.

During the early part of 1917, the aviation examining board of Washington, D. C., passed on approximately all applicants for commission in the aviation section, Signal Corps, but with the expansion of its commissioned personnel the number of units was increased until in January, 1918, there were 35 examining units established in the principal cities of the United States, which with 32 additional units established at National Army and National Guard divisional cantonments, made a total of 67 examining units.

From the month of February, 1918, the work of these units has gradually been terminated. Now, after a period of inactivity, a limited number of boards have resumed their functions. The examining unit serves two functions. Its medical personnel passes on the physical fitness of the prospective aviator, and the board tests his mental qualifications. A careful tabulation has been made of the results of the physical examination of all men who applied for detail as cadet fliers; 70.7 per cent qualified and 29.3 per cent were rejected. Separating the causes of disqualification into nine groups, the following rates based on the total number examined are obtained:

	Per cent.
1. Eye	5.9
2. Ear	1.2
3. Nose and throat	.8
4. Equilibrium	2.
5. Vascular system	2.5
6. Genitourinary system	.4
7. Other and general subnormalities	1.9
8. Disqualified in two tests	7.
9. Disqualified in three or more tests	8.6
Total	29.3

For any one cause of rejection the failure to meet the eye requirements easily leads, being 5.9 per cent. Visual defects were present in at least one-half of the cases where men failed in two or more counts. In other words, it is safe to assume that practically 50 per cent of those rejected failed to meet the eye tests.

In connection with the care of the fliers a special board has been established to study the effects of altitude on man, and its relation to deterioration of mental and physical activity. This special board is designated as the medical research board, air service, and consists of trained psychologists and medical men taken preferably from existing examining units trained in eye and ear examinations, particularly the rotation tests. It investigates all conditions which affect the efficiency of pilots, carrying out at flying schools and elsewhere such experiments and tests as will determine the ability of pilots to fly in high altitudes. It consists of a central laboratory at Mineola with extensions at flying schools. At present the work of the board is devoted to the training of examining units for the 10 laboratories wherein will be carried on the work of examining and classifying officers who will comprise the flying force of the Army, and which will establish the fitness of each man for that altitude in which he can best be of service.

Also, a natural outcome of the work of the office in connection with the welfare of the aviator in actual service has been the need of a medical advisor to the commanding officer. The military designation given to such an officer is flight surgeon. Each flying school is to have its flight surgeon, who is responsible for the "fitness to fly" of each individual aviator in the command. Others will be trained for service abroad as needed. Under the flight surgeon will be a physical director whose duty will be to have charge of the physical exercise and athletic training of the fliers in the command. The organization is now being completed for 50 flight surgeons, and in addition 50 physical directors. This personal supervision will tend to greatly increase the mental, moral, and physical efficiency of the flier, and is a consistent outcome of all policies pursued by the medical branch of the air service with regard to the selection and care of the air service personnel.

Respecting hospital construction and maintenance, the work has been mainly directed towards standardizing all medical department buildings for use at flying fields.

The following cantonment types have been developed:

1. Hospitals: Six-bed; 8-bed; 28-bed; 50-bed; 60-bed; 100-bed; 250-bed; 750-bed; 1,250-bed.
2. Medical Department enlisted barracks: Types for 30 men; 50 men; 60 men; 200 men.
3. Nurses' quarters: Types for 6 nurses; 12 nurses; 30 nurses; 60 nurses.
4. Medical research laboratory buildings.
5. Cold-storage buildings of three types have been developed for 1,000 men; 2,000 men; 5,000 men. These are cooling chambers in ice houses, and have been built at 20 of the southern fields.
6. Storehouses of two types, one for single unit and one for larger fields. These include fumigation chambers and the necessary shelving.

Two permanent hospitals are being constructed, one at Rockwell Field and one at Langley Field. These were designed by Mr. Kahn, of Detroit, Mich., and will be a credit to the service.

A 200-bed hospital, the Mary Imogene Bassett Hospital at Cooperstown, N. Y., was offered, rent free, to the aviation service for the recuperation of aviators, by Mr. Edward Severin Clark, of Cooperstown. The buildings will be completed about February 1, 1919. Included in the lease is the free use of the golf links, gymnasium, library, and club at Cooperstown.

All hospitals at all fields have been enlarged during the fiscal year, and separate quarters provided for enlisted men. Nurses' quarters at 21 of the single-unit fields have been delayed owing to their disapproval by the Secretary of War. It is hoped their construction will proceed shortly.

Steps have been taken to increase the ventilation in all barracks and hospitals in the aviation service.

The subject of providing quicker and more efficient handling of the injured, following crashes on flying fields, is receiving the consideration of the medical service, and the airplane ambulance is being developed. In all cases where the injured are in imperative need of an immediate operation, or must be moved with a minimum jolting, their transportation to the rear by airplane ambulance is important.

Experiments have already shown the following important facts:

(1) While an auto will cover a distance of 20 km. in an hour and a half, an aeroplan with the same load will do it in less than 15 minutes.

(2) All jolts which are so dangerous to the wounded, particularly to those suffering from wounds of the abdomen and thorax, and from fractures, are radically eliminated The shock of landing on rather bad grounds is much slighter than the jolt one gets i an automobile crossing over ruts or shallow trenches.

The aviation section, Signal Corps, ceased and determined upo the creation and organization of the Department of Military Aero nautics, pursuant to the proclamation of the President, dated Ma 20, 1918. The chief surgeon's office, aviation section, Signal Corps became the air service division, Surgeon General's Office. On th 30th day of June, 1918, there were 65 stations occupied by troop connected with aviation.

XIII. FOOD DIVISION.

The food division was established September 4, 1917.

The director appointed by the Surgeon General secured the services of an advisory committee. A meeting of this committee was held on September 29, 1917. The plan presented by the director for nutritional surveys of camps and cantonments was formally approved. The plan presented was set forth in a memorandum to the Surgeon General dated September 19, 1917.

On September 20, 1917, a conference was held in the office of the United States Food Administration, Washington, D. C., to consider questions relative to the subsistence of the Army. The Surgeon General of the Army, the Quartermaster General of the Army, a representative of the British Army, the Director of the Food Administration, and a number of other notable men who are engaged or interested in this class of work, were present. At the suggestion of the Surgeon General, the Director of the Food Administration was called upon by the chairman to outline the plans for investigation of the food conditions in the camps. There followed a general discussion of subsistence and waste in the Army camps, in the course of which a number of questions were asked regarding the plans of the food division. Such comments as were made were generally favorable to the plan.

Formal approval of the plan of operation outlined for nutritional surveys was obtained by an indorsement approved by the Secretary of War dated October 16, 1917, and on October 26, 1917, The Adjutant General addressed a letter to all the commanding generals of departments, National Guard, and National Army divisions, and the commanding officers of Coast Artillery districts, training camps, and independent stations on the subject of food surveys and inspections in the training camps and cantonments and hospitals of the United States Army, requesting authority to make the food surveys as outlined in the several posts, training camps, cantonments, and hospitals of the United States Army, and authorizing the necessary travel for this purpose.

Officers for the food division were selected mainly from the faculties of medical schools, university laboratories, and agricultural experiment stations, and were commissioned in the Sanitary Corps. They were given a brief course of training in Army procedure, in the conduct of nutritional surveys, and in gross inspection of foods. Later a course for nutrition officers was established at Camp Greenleaf.

The first nutritional survey was made at the ambulance service training camp, later known as Camp Crane, Allentown, Pa., the first week in October. Following this parties were made up and successively dispatched to other camps until early in 1918 the total number of parties had reached 10. Surveys were made and parties constituted as described in Table 156.

Results may be grouped under three heads corresponding to the three main lines of activity: (1) Inspection of food; (2) improvement of mess conditions; (3) study of the suitability of the ration.

1. INSPECTION OF FOODS.

Foods were inspected by nutritional survey parties at the subsistence storehouses and in mess houses, special attention being given to those classes of food not already inspected by the veterinary division or by representatives of the Bureau of Animal Industry for the Quartermaster Corps.

2. IMPROVEMENT IN MESS CONDITIONS.

Mess conditions were studied with reference to (*a*) sanitation, (*b*) efficiency, (*c*) economy, (*d*) satisfactory nutrition. Such reports as were made on sanitary conditions of the mess were made directly to the sanitary inspector of the camp. Many recommendations were made for improving the efficiency of the mess as judged by the completeness and state of repair of its equipment; by the cleanliness of this equipment; by the state of orderliness in the storeroom, the arrangement of foods in the refrigerator, the system of menus, the mess accounting, the amount of savings, and the training of kitchen personnel. Special attention was given also to the matter of food conservation and economic mess management. An illustration of the effect of a few days' special instruction in reduction of waste is seen in chart No. 71. The main object of the visits of survey parties to the mess was to assist in the adoption of such measures as would result in proper nutrition of the soldiers. Instruction was given in the construction of menus so as to insure a sufficient supply without excess of each of the important foodstuffs. Such instruction was most commonly given at conferences of the mess sergeants or mess officers of a single regiment.

3. SUITABILITY OF THE RATION.

Detailed quantitative surveys have been made of more than 300 messes scattered through more than 50 camps and extending from October to June. A page from the statistical summaries of these surveys is shown in Table No. 156. This exhibits the average energy value of food supplied, wasted, and consumed per man per day, the distribution of fuel value in the food consumed, the percentage of each foodstuff wasted, as well as the percentage of the total fuel value wasted, the cost of the food consumed per man per day, the value of the food wasted, and the actual average amount of total waste and edible waste. Studies have been made also at a considerable number of camp and regimental exchanges (chart No. 72). The actual average amount of nutrient materials purchased at the canteen has been estimated at 405 calories per man per day. This added to the total food consumption at the mess of 3,700 calories makes a grand total of about 4,100 calories, or 27.9 calories per pound for the average soldier. This agrees with the theoretical requirement of energy necessary to enable a soldier of average weight to do a maximum piece of work, such as a march of 30 miles in 10 hours carrying a pack and other equipment weighing 44 pounds. If a soldier does not do this maximum quantity of work the fuel energy accumulates in his body in the form of fat, the muscles also hypertrophy, and the result is a considerable gain in weight. The average gain estimated in four different camps (Devens, Grant, Dodge, and Funston) amounts to 7½ pounds in three months.

The nutritional surveys were calculated to exhibit not only the actual average amount of food consumed but also the average amounts of various articles composing the ration as selected. Table No. 157 shows in parallel columns the amount of each article of food prescribed by garrison ration (A. R. 1221) and the actual average amount of each of these components and substitutive articles selected in 227 messes (Table No. 157). As a result of these studies the food division has proposed that the garrison ration be modified in accordance with

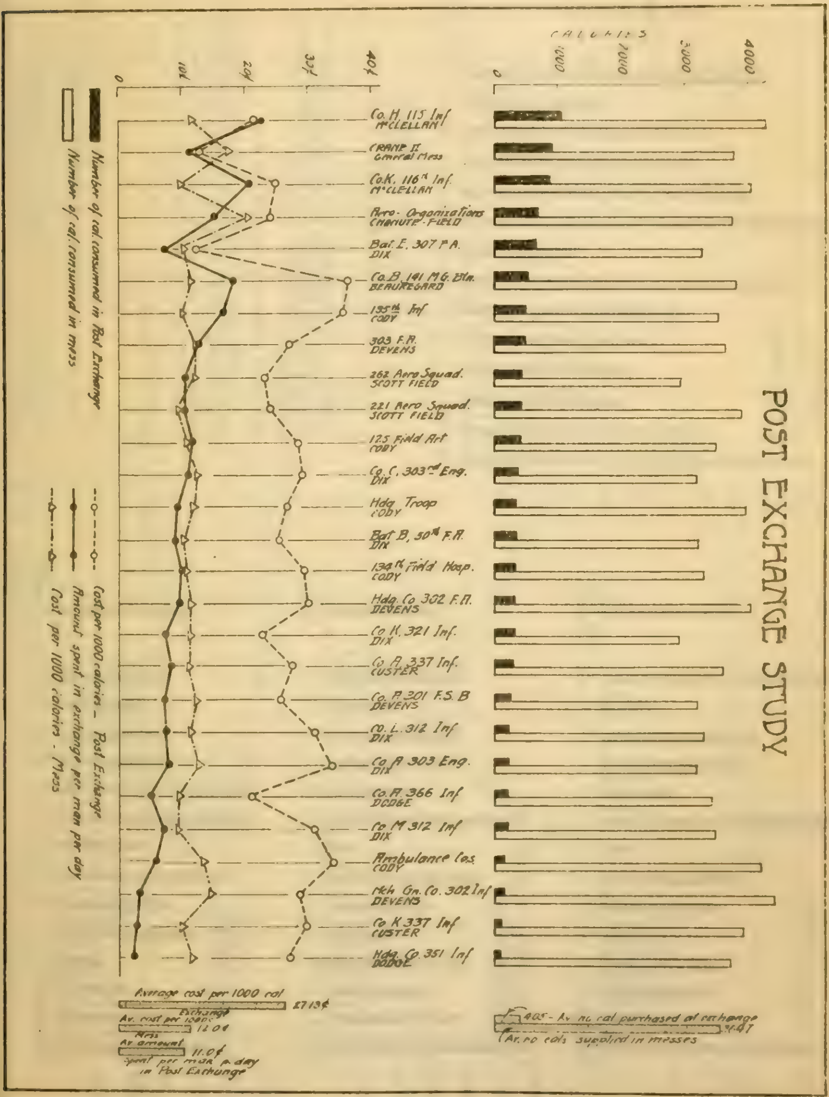
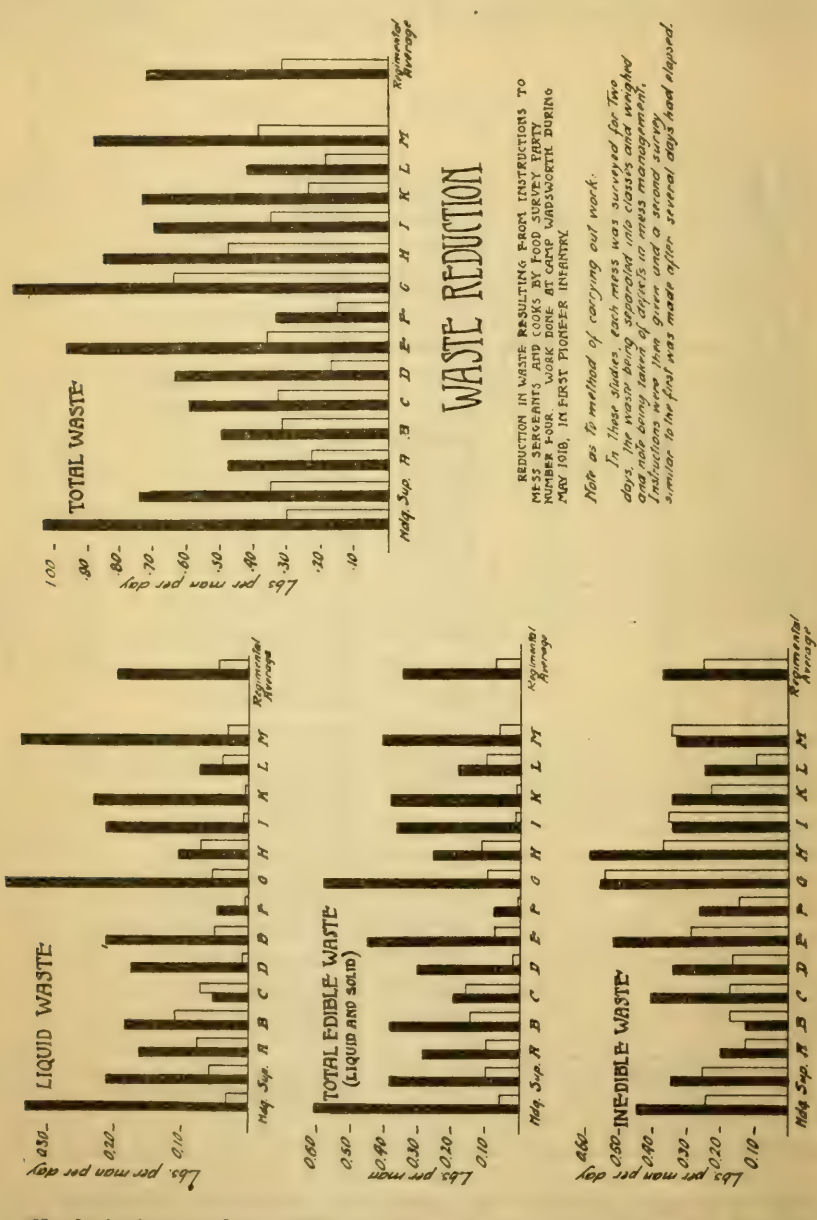


CHART No. 71.

the tastes of the men as expressed in these average amounts actually selected, and that this modified ration be called the training ration to be used in the training camps of the United States.



WASTE REDUCTION

REDUCTION IN WASTE RESULTING FROM INSTRUCTIONS TO MESS SERGEANTS AND COOKS BY FOOD SURVEY PARTY NUMBER FOUR. WORK DONE AT CAMP WADSWORTH DURING MAY 1918, IN FIRST PIONEER INFANTRY.

Note as to method of carrying out work:

In these studies, each mess was surveyed for two days, the waste being separated into classes and weighed and note being taken of defects in mess management. Instructions were then given and a second survey similar to the first was made after several days had elapsed.

CHART No. 72.

Early in September, 1917, a request was received from the American Red Cross for a ration to be purchased by the Red Cross and supplied through the International Red Cross to American prisoners in Ger-

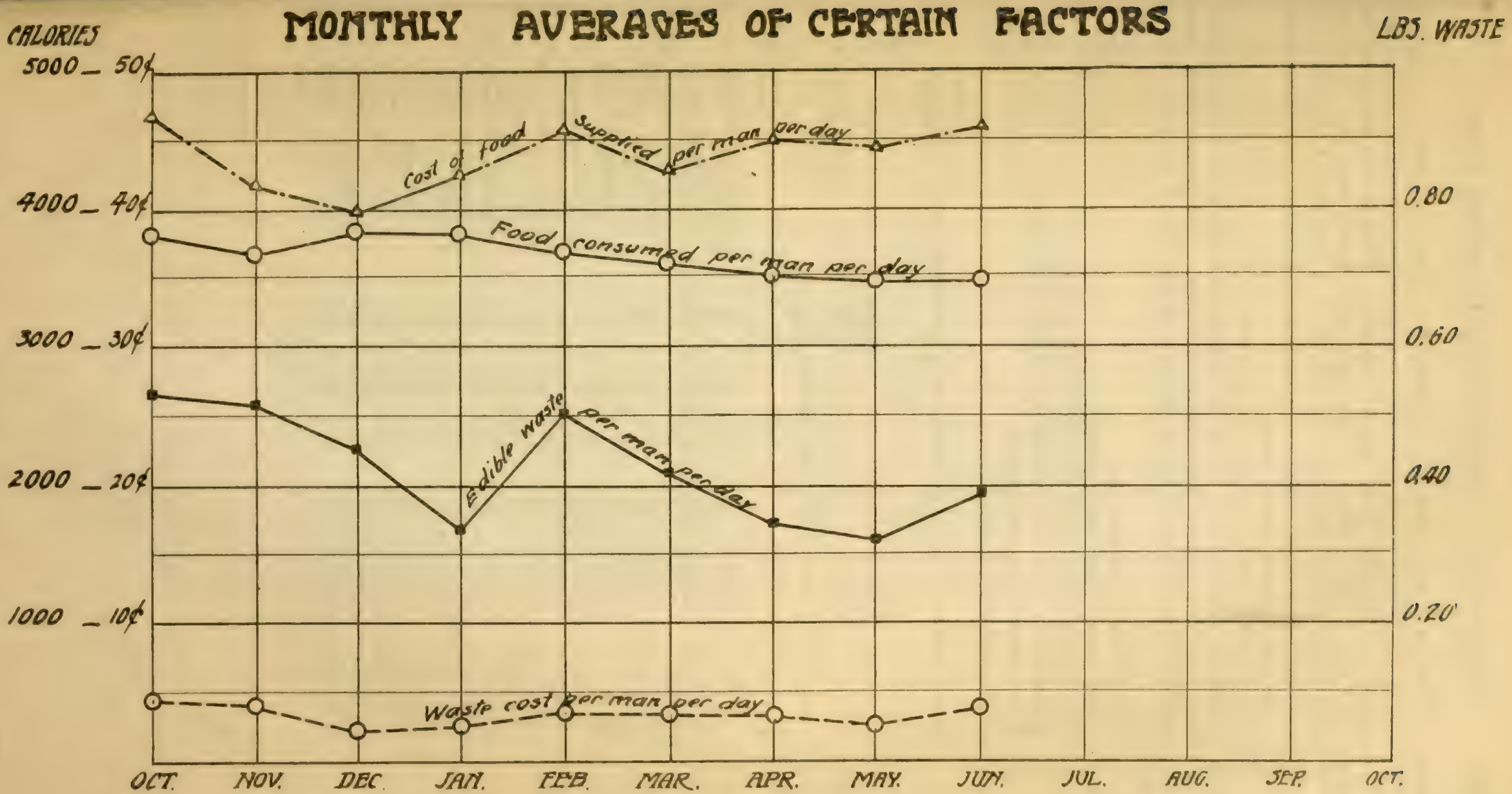

MONTHLY AVERAGES OF CERTAIN FACTORS
CALORIES
LBS. WASTE
5000 – 50¢
4000 – 40¢
3000 – 30¢
2000 – 20¢
1000 – 10¢
0.80
0.60
0.40
0.20
Cost of food supplied per man per day
Food consumed per man per day
Edible waste per man per day
Waste cost per man per day
OCT.
NOV.
DEC.
JAN.
FEB.
MAR.
APR.
MAY.
JUN.
JUL.
AUG.
SEP.
OCT.

CHART NO. 73.

many. This ration is shown in Table No. 158. Likewise a request from the same source was received for a ration designed especially for American prisoners ill in enemy camps. This ration is shown in Table No. 159. Both these rations are now being supplied through Red Cross channels to American prisoners. A system of checking by receipts from individual soldiers furnishes satisfactory evidence that the rations are actually delivered.

With this war have come many new feeding problems. Much light is thrown on some of them by statistical surveys in the camps, but others call for special laboratory studies. Subjects which have been specially investigated by members of the Food Division are as follows:

(1) Dehydrated vegetables.
(2) Meat inspection and spoilage.
(3) The physicochemical properties of gluten.
(4) Relation of diet to specific muscular strength.
(5) Relation of diet to disease.
(6) New analyses of meat.

TABLE NO. 156.—*Statistical summary of nutritional surveys (averages).*

Messes.	Food per man per day.				Distribution of fuel value consumed.	Wasted.	Per man per day.	
	Nutrients.	Supplied.	Wasted.	Consumed.				
					Per ct.	*Per ct.*		
49........	Protein........grams..	139	12	127	14	9	Consumed cost.cents..	41.30
	Fat............grams..	129	14	115	30	11	Waste cost.....cents..	3.57
	Carbohydrate..grams..	539	40	499	56	7	Total waste..pounds..	——
	Fuel value....calories.	3,980	343	3,637	100	9	Edible waste.pounds..	——
68........	Protein........grams..	139	11	128	14	8	Consumed cost.cents..	40.82
	Fat............grams..	127	13	114	29	10	Waste cost.....cents..	3.51
	Carbohydrate..grams..	537	37	500	57	7	Total waste..pounds..	.82
	Fuel value...calories..	3,853	318	3,635	100	8	Edible waste.pounds..	.45
85........	Protein........grams..	139	10	129	14	7	Consumed cost.cents..	41.58
	Fat............grams..	130	12	118	30	9	Waste cost.....cents..	3.41
	Carbohydrate..grams..	536	35	501	56	7	Total waste..pounds..	.82
	Fuel value...calories..	3,977	297	3,680	100	7	Edible waste.pounds..	.43
143.......	Protein........grams..	139	10	129	14	7	Consumed cost.cents..	42.55
	Fat............grams..	132	12	120	30	9	Waste cost.....cents..	3.10
	Carbohydrate..grams..	534	33	501	56	6	Total waste..pounds..	.85
	Fuel value...calories..	3,987	288	3,699	100	7	Edible waste.pounds..	.44
185.......	Protein........grams..	138	9	129	14	7	Consumed cost.cents..	42.17
	Fat............grams..	130	12	118	30	9	Waste cost.....cents..	2.99
	Carbohydrate..grams..	529	32	497	56	6	Total waste..pounds..	.82
	Fuel value...calories..	3,944	280	3,664	100	7	Edible waste.pounds..	.43
213.......	Protein........grams..	138	9	129	14	7	Consumed cost.cents..	42.75
	Fat............grams..	133	12	121	31	9	Waste cost.....cents..	3.00
	Carbohydrate..grams..	527	31	496	55	6	Total waste..pounds..	.83
	Fuel value...calories..	3,963	276	3,687	100	7	Edible waste.pounds..	.42
361.......	Protein........grams..	133	9	124	14	7	Consumed cost.cents..	43.35
	Fat............grams..	130	15	115	30	12	Waste cost.....cents..	3.46
	Carbohydrate..grams..	513	32	481	56	6	Total waste..pounds..	.86
	Fuel value...calories..	3,858	308	3,550	100	8	Edible waste.pounds..	.40

Table No. 157.—*Comparison of garrison ration with average amounts supplied in 227 messes.*

Food.	Garrison ration, A. R. 1221.		Supplied in 227 messes.		Proposed training ration.		
						Substitutes on basis of—	
	Components.	Substitutes.	Components.	Substitutes.	Components.	Energy.	Protein.
	Ounces.	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*
Beef, fresh	14		9.15		12		
Mutton						9.07	14.5
Veal				0.26		20.7	10.3
Pork, fresh				.83		9.8	12.9
Poultry				.27		13.1	12.6
Fish, fresh (salmon)				.30		18.1	10.8
Fish, fresh (cod)						73.4	22.4
Fish, preserved				.27		23.2	8.3
Corned beef (canned)						14.7	7.2
Hash, corned beef				.19		22.7	13.2
Liver				.24		21.9	9.3
Total beef, etc	14		9.15	2.36	12		
Total beef, etc	14.00		11.51		12		
Bacon		3.6	.50		2		
Ham				.72		3.7	1.3
Sausage				.94		4.7	.9
Total bacon, etc		3.6	.50	1.66	2		
Total bacon, etc	3.6		2.16		2		
Flour	18		1.87		10		
Bread, soft				7.98		10.67	10.96
Bread, hard				.02		9.22	10.00
Total flour, etc	18		1.87	8.00	10		
Total flour, etc	18		9.87		10.00		
Other cereals (oatmeal)			.40		1.5		
Corn meal				.48		1.68	2.70
Farina				.37		1.65	2.50
Total other cereals			.40	.85	1.5		
Total other cereals			1.25		1.5		
Baking powder	.08				.08		
Beans, dried	1.2		1.01		2.25		
Beans, baked, canned						6.02	7.34
Peas, dried						2.18	2.06
Peas, canned				.82		14.04	14.06
Corn, canned				.58		7.91	18.05
Total beans, etc	1.2		1.01	1.40	2.25		
Total beans, etc	1.2		2.41		2.25		
Rice		.8	.45		1.0		
Hominy, dry				.30		1.00	1.04
Macaroni and spaghetti				.22		.98	.61
Corn starch						.97	
Total rice, etc		.8	.45	.52	1.0		
Total rice, etc	.8		.97		1.0		
Potatoes, white	14		11.74		14		
Potatoes, sweet				.77		9.43	18.00
Potatoes, dehydrated						2.72	2.77
Potatoes, sweet, dehydrated						2.63	4.85
Total potatoes	14		11.74	.77	14		
Total potatoes	14		12.51		14.00		

TABLE No. 157.—*Comparison of garrison ration with average amounts supplied in 227 messes*—Continued.

Food.	Garrison ration, A. R. 1221.		Supplied in 227 messes.		Proposed training ration.		
	Components.	Substitutes.	Components.	Substitutes.	Components.	Substitutes on basis of— Energy.	Substitutes on basis of— Protein.
	Ounces.	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*
Onions, fresh		4	0.74		4		
Onions, dehydrated						0.48	
Cabbage, fresh				1.11		6.44	
Cabbage, dehydrated						.52	
Beets, fresh				.09		4.63	
Beets, dehydrated						.51	
Carrots, fresh				.14		4.86	
Carrots, dehydrated						.49	
Spinach, fresh				.21		7.07	
Spinach, dehydrated						.61	
Turnips, fresh				.35		6.24	
Turnips, dehydrated						.50	
Total onions, etc		4	.74	1.90	4		
Total onions, etc	4		2.64		4		
Tomatoes, canned		2	1.41		2		
Tomatoes, dehydrated						.13	
Total tomatoes		2	1.41		2		
Total tomatoes	2		1.41		2		
Prunes	.38		.40		.5		
Apples, evaporated		.13	.13		.25		
Peaches, evaporated		.13	.21		.25		
Peaches or pears, evaporated						.27	
Peaches or apricots						.25	
Peaches or raisins and currants				.13		.22	
Jam		.64	.58		.60		
Total prunes, etc	.38	.90	1.32	.13	1.60		
Total prunes, etc	1.28		1.45		1.60		
Apples						8.79	
Peaches						12.48	
Pears						7.44	
Pineapple, canned				.19		2.70	
Oranges				.94		11.38	
Bananas				.34		6.45	
Cranberries						9.00	
Lemons						13.34	
Total fresh fruits[1]				1.47			
Total fresh fruits[1]			1.47				
Coffee	1.12		1.08		2.00		
Tea						.5	
Cocoa						2.0	
Total coffee, etc	1.12		1.08		2.00		
Total coffee, etc	1.12		1.08		2.00		
Sugar	3.2		3.39		5.00		
Milk, evaporated	.5		2.05		3.00		
Milk, fresh or reconstituted						[2] 5.94	
Total milk	.5		2.06		3.00		
Total milk	0.5		2.06		3.00		
Vinegar	[3] .64 .32				.12		
Vinegar pickles		.32			.18		
Total vinegar, etc	.32	.32			.30		
Total vinegar, etc	.64				0.30		

[1] Fresh fruits equivalent to 1.6 ounces preserved fruit.
[2] Based on 4 per cent fat.
[3] Equivalent to 0.16 gill.

TABLE No. 157. *Comparison of garrison ration with average amounts supplied in 227 messes*—Continued.

Food.	Garrison ration, A. R. 1221.		Supplied in 227 messes.		Proposed training ration.		
	Components.	Substitutes.	Components.	Substitutes.	Components.	Substitutes on basis of—	
						Energy.	Protein.
	Ounces.	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*
Pepper	0.04	....	....	....	0.02	....	....
Salt	.64	....	....	....	.5	....	....
Cinnamon	.014	....		....	.014	....	....
Cloves	....	.014	....		....	....	....
Nutmeg	....	.014	....	....	....	.014	....
Ginger	....	.014	....	....	....	.014	....
Total spices	.014	....	0.003		0.014		
Lard	.32	....	.11	....	.10	....	....
Lard substitute	....	.32	.88	....	.60	....	....
Total lard, etc	.32	.32	.69	....	.70	....	....
Total lard, etc	0.64		0.69		0.70		
Butter	.25	....	.40	....	.50	....	....
Oleomargarine	....	.25	.11	....	.50	....	....
Total butter, etc	.25	.25	.51	....	1.00	....	....
Total butter, etc	0.50		0.51		1.00		
Sirup	[1] 1.78		0.72		0.74		
Flavoring extract	0.014		....	....	0.014		
Energy supplied, calories	4,757		[2] 3,422		4,243		

[1] Equivalent to 0.32 gill.

[2] 88 per cent of food supplied accounted for.

TABLE No. 158.—*American Red Cross prisoners' ration.*

	Weight (avoirdupois).	Weight (metric).	Protein.	Fat.	Carbohydrate.	Protein.	Fat.	Carbohydrate.
	Ounces.	*Grams.*	*Per ct.*	*Per ct.*	*Per cent.*	*Grams.*	*Grams.*	*Grams.*
Rice	8	226	8.0	0.3	79.0	18	1	179
Sugar	12	340	....	....	100.0	....	....	340
Dried beef	10	283	26.4	6.9	....	75	20	....
Pork and beans	32	906	6.9	2.5	17.1	63	23	155
Peanut butter	8	226	29.3	46.5	17.1	66	105	39
Crackers, soda	44	1,245	9.8	9.1	72.8	122	113	906
Evaporated milk	3	85	8.8	8.3	54.1	7	7	46
Coffee	5	142	....	....	....	....	....	....
Salt and pepper	2	57	....	....	....	....	....	....
Milk chocolate	4	113	8.7	32.0	56.6	10	36	64
Desiccated strawberries	2	57	9.6	6.4	60.0	5	4	34
Jam	8	226	.6	.1	84.5	1	....	191
Nut margarine	3	85	1.2	83.0	....	1	71	....
Dried figs	3	85	4.3	.3	74.2	4	....	63
Soap	3	85	....	....	....	....	....	....
Cigarette makings, 2 packages of ("Bull Durham" with papers.								
Total	150	4,256	....	....	....	372	380	2,017

13,029 calories in total, 2,800 per day.

Grams per day.

Protein, 79.8 N (12.8); fat, 81.5; carbohydrates, 434.

Heat from protein, 11 per cent of total.

Rice, hominy, weight for weight.

Dried beef, corned beef in ration of 61 per cent of dried beef weight.

Crackers, soda, weight for weight of all varieties of plain.

Coffee, tea in ration of 25 per cent weight of coffee.

Desiccated strawberries, raspberries, blackberries, weight for weight.

Jam, all kinds, weight for weight.

Nut margarine, oleo, weight for weight.

Dried figs, dates, weight for weight; apples, 120 per cent; apricots, 120 per cent; pears, 110 per cent; prunes, 130 per cent.

Cigarette makings, substitute cigars, pipes, etc.

TABLE No. 159.—*American Red Cross invalid ration for American prisoners of war.*

Component.	Amount.	Container, full directions for.	Alternates.	Amount.	Container.[1]
	Ounces.			*Ounces.*	
Potted chicken	2.0	4-oz. tin cans	Potted beef or veal	2.0	4-oz. tin cans.
			Dried beef (not salted).	3.0	4-oz. wax cartons.
			Beef tongue (whole, canned.)	2.0	4-oz. tin cans.
			Salmon, canned	2.5	4-oz. tin cans.
			Eggs, dried	3.3	8-oz. wax cartons.
			Cheese, American pale.	1.2	4-oz. wax cartons.
Potatoes	1.2	16-oz. wax cartons	Rice	1.2	8-oz. wax cartons.
			Macaroni	1.2	8-oz. wax cartons.
			Hominy grits	1.2	8-oz. wax cartons.
Crackers, any kind	8.0	8-oz. wax cartons	Zwiebach	8.0	8-oz. wax cartons.
Oleo, meat fat with 10 per cent butter fat	1.0	8-oz. wax cartons	Nut margarine	1.0	8-oz. wax cartons.
			Peanut butter	1.2	8-oz. wax cartons.
Soup, compressed, e. g. "Julienne."	1.2	16-oz. wax cartons			
Spinach, dehydrated.	.5	8-oz. wax cartons	Tomato, dehydrated	.5	8-oz. wax cartons.
Oatmeal, steamed	.8	8-oz. wax cartons	Farina	.8	8-oz. wax cartons.
			Barley	.8	8-oz. wax cartons.
Sugar	2.0	8-oz. cartons	Sirup, corn[2]	2.5	8-oz. tin cans.
			Honey[2]	2.5	8-oz. tin cans.
Milk, powder	2.0	8-oz. tin cans	Fresh milk	16.0	
			Malted milk powder	2.0	8-oz. tin cans.
Prepared corn starch pudding.	.8	8-oz. wax cartons	Prepared tapioca pudding.	.8	8-oz. wax cartons.
			Prepared sago pudding.	.8	8-oz. wax cartons.
			Gelatine preparation.	.8	8-oz. wax cartons.
Dried apples	1.0	8-oz. wax cartons	Dried apricots, prunes.	1.0	8-oz. wax cartons.
			Peaches	1.0	8-oz. wax cartons.
			Figs or dates	.8	8-oz. wax cartons.
			Fresh fruit (apples, oranges, or lemons)	5.0	
			Jam or marmalade	1.0	8-oz. tin cans.
Chocolate, sweet	1.0	1-oz. cakes	Cocoa	.3	4-oz. tin cans.
Beef, extract	0.2	2-oz. jars	Bouillion cubes	.2	2-oz. jars.
Coffee, soluble	0.4	4-oz. tin cans	Tea	.4	4-oz. tin cans.
Bran	0.3	1-oz. wax cartons	Agar-Agar	.2	1-oz. wax cartons.
Salt	0.7	4-oz. wax cartons			
Pepper	0.04	1-oz. boxes			

[1] Full directions for use must be printed on each package.
[2] May replace sugar to extent of 50 per cent.

XIV. PERSONNEL DIVISION.

The Medical Department, like all other departments of the Army, has grown during the past year at an unprecedented rate. The increase has naturally been most marked in the Medical Reserve Corps. Thousands of physicians and surgeons in civil practice, inspired by a desire to be of service in the present emergency, have applied for and accepted commissions in the Medical Reserve Corps.

According to the Surgeon General's report of June, 1917, there were on June 30, 1916, in active service, 443 officers of the Medica Corps, and 146 officers of the Medical Reserve Corps.

On June 30, 1917, two and a half months after war was declared there were in the Medical Corps, 489 officers on active duty, an increase of 10⅓ per cent, and 3,636 officers of the Medical Reserve Corps on active duty, an increase of 2,390 per cent.

On June 30, 1918, there were in the Medical Corps, in active service, 867 medical officers, an increase of 81 per cent over 1917, and o 95 per cent over 1916. On the same date, there were in the Medica

Reserve Corps, in active service, 20,855 medical officers, an increase of 416 per cent over 1917 and 14,284 per cent over 1916.

There were in the United States in 1916, 146,332 physicians, so with 20,855 officers of the Medical Reserve Corps in active service, there are in the first 15 months after declaration of war, 14.65 per cent of the entire civilian medical profession of the United States on active duty as medical officers of the Army. This showing is most gratifying as indicating the disposition on the part of the civil medical profession of supplying whatever number of medical officers may be needed for the protection of the health and well-being of the American soldiers.

The following tables show the strength at different periods during the fiscal year from June 30, 1917, to June 30, 1918, of the Regular Medical Corps; Medical Reserve Corps; Medical Corps, National Guard; Medical Corps, National Army; the Regular Dental Corps; Dental Corps, National Guard; Veterinary Corps; the Sanitary Corps; and the Nurses Army Corps:

TABLE No. 160.—*Strength of the personnel, commissioned, enlisted, and otherwise, of the Medical Department on June 30, 1917.*

	Number.		Number.
Medical officers	489	Army Nurse Corps	259
Approved Medical Corps candidates awaiting confirmation	39	Army Nurse Corps reserve on active duty	917
Medical Reserve officers, active duty	3,636	Medical Department, enlisted personnel	16,773
Contract surgeons	9	Civilian employees, Medical Department at large	934
Dental surgeons, commissioned	86		
Veterinarians, commissioned	57	Total medical personnel	23,199

1. MEDICAL CORPS.

Table No. 161 shows the strength of the Medical Corps, by months, from June 30, 1917 to June 30, 1918. The Medical Corps is composed of the commissioned medical officers of the Regular Army:

TABLE No. 161.—*Strength of the Medical Corps, by months, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	First lieutenant.	Total.
June 30, 1917	1	....	21	35	156	....	272	485
July 31, 1917	1	....	21	35	156	....	272	485
Aug. 31, 1917	1	....	67	112	220	....	129	529
Sept. 30, 1917	1	....	67	114	216	....	134	532
Oct. 31, 1917	1	....	67	114	216	....	135	533
Nov. 30, 1917	1	....	67	114	216	....	136	534
Dec. 31, 1917	1	....	67	111	216	....	379	774
Jan. 31, 1918	1	....	66	111	215	....	380	774
Feb. 28, 1918	1	....	66	112	214	....	403	796
Mar. 31, 1918	1	....	65	111	239	....	427	843
Apr. 30, 1918	1	....	65	110	297	....	370	843
May 31, 1918	1	....	65	112	296	....	393	867
June 30, 1918	1	....	65	112	296	....	393	867

The following changes in the Regular Medical Corps occurred from June 30, 1917, to June 30, 1918:

TABLE No. 162.—*Changes in Regular Medical Corps.*

	Number.		Number.
EXAMINATIONS.		RETIRED AND RESIGNED.	
Examined, preliminary	598	Retired:	
Accepted	296	Colonels	3
Rejected	230	Lieutenant colonels	5
Physically disqualified	49	Majors	1
Rejected by Fort Oglethorpe Board, final	11	Total	[illegible]
Appointed	395		
		Resigned, lieutenants	1
PROMOTIONS.			
Promoted:		DEATHS.	
To colonel	46	Deceased:	
To lieutenant colonel	126	Lieutenant colonels	2
To major	256	Majors	1
Total	428	Total	3

2. MEDICAL OFFICERS RESERVE CORPS.

The Medical Officers Reserve Corps (the successor of the old Medical Reserve Corps) came into existence on June 3, 1917. Most of the officers of the old Medical Reserve Corps were transferred to the new, and a large number of additional officers have been commissioned and assigned to active service.

The following table shows the strength of the Medical Reserve Corps, by months and by grades, from June 30, 1917, to June 30, 1918:

TABLE No. 163.—*Strength of Medical Reserve Corps, by months, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	First lieutenant.	Total.
June 30, 1917					266	894	3,695	4,85
July 20, 1917					313	1,272	6,734	8,31
Aug. 31, 1917					360	1,593	8,046	9,99
Sept. 30, 1917					444	1,969	10,492	12,90
Oct. 31, 1917					556	2,372	11,616	14,54
Nov. 30, 1917					672	2,580	11,649	14,90
Dec. 31, 1917					802	3,057	11,646	15,50
Jan. 31, 1918					919	3,395	12,123	16,43
Feb. 28, 1918					1,053	3,971	12,406	17,43
Mar. 31, 1918					1,135	4,310	12,834	18,27
Apr. 30, 1918					1,252	4,584	12,937	18,77
May 31, 1918					1,388	4,983	12,855	19,22
June 30, 1918					1,469	5,866	13,520	20,85

3. MEDICAL CORPS—NATIONAL GUARD.

The Medical Corps of the National Guard includes those officer holding commissions in State organizations which were mobilize under Federal control.

The following table shows the strength of the Medical Corps National Guard, by months and by grades, from January 31, 1918 to June 30, 1918:

ABLE 164.—*Strength of Medical Corps, National Guard, by months, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	First lieutenant.	Total.
ustered in Aug. 5, 1917				13	285	140	908	1,346
an. 31, 1918				7	250	147	774	1,178
eb. 28, 1918				7	259	146	790	1,202
ar. 31, 1918				16	251	151	794	1,212
pr. 30, 1918				19	246	150	790	1,205
ay 31, 1918				18	249	150	782	1,199
une 30, 1918				24	280	262	699	1,265

The following table shows the changes in the Medical Corps, National uard, from June 30, 1917, to June 30, 1918:

TABLE NO. 165.—*Medical Corps, National Guard.*

	Number.
romoted:	
To lieutenant colonel	11
To major	27
To captain	159
Total	197
ischarged:	
Majors	20
Captains	13
Lieutenants	63
Total	96
esigned:	
Majors	2
Captains	3
Lieutenants	3
Total	8

IN FEDERAL SERVICE ON JUNE 30, 1918.

	Number.		Number.
MEDICAL CORPS.		DENTAL CORPS.	
ieutenant colonels	24	Captains	31
ajors	280	Lieutenants	236
aptains	262	Total	267
ieutenants	699		
Total	1,265		

MUSTERED INTO FEDERAL SERVICE ON AUG. 5, 1917.

	Number.		Number.
MEDICAL CORPS.		DENTAL CORPS.	
ieutenant colonels	13	Captains	
ajors	285	Lieutenants	289
aptains	140	**Total**	289
ieutenants	908		
Total	1,346		

TABLE No. 165.—*Medical Corps, National Guard*—Continued.

APPOINTED OR DRAFTED INTO FEDERAL SERVICE SINCE AUG. 5, 1917.

	Number.
MEDICAL CORPS.	
Majors	1
Captains	6
Lieutenants	16
Total	23

4. MEDICAL CORPS—NATIONAL ARMY.

The Medical Corps of the National Army consists of those officers of the Regular Corps or Reserve Corps, who were commissioned to vacancies in the National Army in accordance with the national defense act of June 3, 1916.

The following table shows the strength of the Medical Corps, National Army, by months and grades, from June 30, 1917, to June 30, 1918:

TABLE No. 166.—*Strength of Medical Corps, National Army, by months, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	Lieutenant.	Total.
June 30, 1917								
July 31, 1917								
Aug. 31, 1917								
Sept. 30, 1917		4						
Oct. 31, 1917		4						
Nov. 30, 1917		4						
Dec. 31, 1917		4						
Jan. 31, 1918		4	3	3	2			12
Feb. 28, 1918		4	13	42	2			61
Mar. 31, 1918		3	11	78	8			100
Apr. 30, 1918		3	12	91	8			114
May 31, 1918		5	16	122	8			151
June 30, 1918		6	84	250	8	1		349

5. DENTAL CORPS.

The Dental Corps is made up of officers commissioned as dental surgeons in the Regular Army.

The following table shows the strength of the Dental Corps, by months and by grades, from June 30, 1917, to June 30, 1918:

TABLE No. 167.—*Strength of Dental Corps, by months, from June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	Lieutenant.	Total.
June 30, 1917						21	65	86
July 31, 1917						21	65	86
Aug. 31, 1917						21	157	178
Sept. 30, 1917						21	157	178
Oct. 31, 1917						21	157	178
Nov. 30, 1917						21	157	178
Dec. 31, 1917						21	162	183
Jan. 31, 1918			12	20	54		125	211
Feb. 28, 1918			12	20	54		125	211
Mar. 31, 1918			12	19	54		124	209
Apr. 30, 1918			12	19	54		124	209
May 31, 1918			12	19	54		124	209
June 30, 1918			12	19	54		127	212

The following table shows the changes in the Regular Dental Corps from June 30, 1917, to June 30, 1918:

TABLE NO. 168.—*Changes in Dental Corps.*

	Number.
Examined	654
Accepted	117
Rejected	337
Physically disqualified	146
Appointed	127
Promoted:	
To colonel	12
To lieutenant colonel	19
To major	53
To captain	2
Total	86
Retired, captains	1
Discharged, lieutenants	1

6. DENTAL RESERVE CORPS.

The Dental Reserve Corps consists of officers commissioned in the Dental Reserve established by the national defense act of June 3, 1906.

The following table shows the strength of the Dental Reserve Corps, by months and grades, from June 30, 1917, to June 30, 1918:

TABLE NO. 169.—*Strength of Dental Reserve Corps, by months and grades, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	Lieutenant.	Total.
June 30, 1917								
July 31, 1917							598	598
Aug. 31, 1917							2,358	2,358
Sept. 30, 1917							2,622	2,622
Oct. 31, 1917							3.452	3,452
Nov. 30, 1917							4,398	4,398
Dec. 31, 1917							4,528	4,528
Jan. 31, 1918							4,749	4,749
Do							1.287	1,287
Feb. 28, 1918							5,048	5.048
Do							1,296	1,296
Mar. 31, 1918					14	84	5,055	5,153
Apr. 30, 1918					25	109	5,087	5.221
May 31, 1918					36	215	5,058	5,309
June 30, 1918					36	244	5,092	5,372

7. DENTAL CORPS, NATIONAL GUARD.

The Dental Corps, National Guard, composed of dental surgeons commissioned for duty in the various State organizations mobilized under Federal control.

The following table shows the strength of the Dental Corps, National Guard, by months and by grades, from January 31, 1918, to June 30, 1918:

TABLE NO. 170.—*Strength of Dental Corps, National Guard, by months, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	Lieutenant.	Total.
June 30, 1917								
July 31, 1917								
Aug. 5, 1917							249	
Sept. 30, 1917								
Oct. 31, 1917								
Nov. 30, 1918								
Dec. 31, 1917								
Jan. 31, 1918							265	265
Feb. 28, 1918							266	266
Mar. 31, 1918						2	257	259
Apr. 30, 1918						2	255	257
May 31, 1918						2	255	257
June 30, 1918						2	251	253

The following changes have occurred in the dental corps, National Guard, from June 30, 1917, to June 30, 1918:

TABLE NO. 171.—*Changes, Dental Corps.*

	Number.
Promoted to captain	31
Discharged, lieutenants	11
Resigned, lieutenants	1

8. VETERINARY CORPS.

The Veterinary Corps of the Medical Department was established by act of Congress on June 3, 1916.

The following table shows the commissioned personnel of the corps, by months and by grades, from June 30, 1917, to June 30, 1918:

TABLE NO. 172.—*Commissioned personnel of the Veterinary Corps, by months, June 30, 1917, to June 30, 1918.*

Date.	Major general.	Brigadier general.	Colonel.	Lieutenant colonel.	Major.	Captain.	Lieutenant.	Second lieutenant.	Total.
June 30, 1917					7	7	36	41	91
July 31, 1917					7	7	36	212	262
Aug. 31, 1917					7	7	36	587	637
Sept. 30, 1917					7	7	36	946	996
Oct. 31, 1917					27	45	69	860	1,001
Nov. 30, 1917					27	45	69	858	999
Dec. 31, 1917					34	57	188	719	998
Jan. 31, 1918					36	62	200	776	1,074
Feb. 28, 1918				1	40	68	248	739	1,096
Mar. 31, 1918				1	40	63	248	739	1,095
Apr. 30, 1918				1	43	91	375	759	1,270
May 31, 1918				1	47	96	395	748	1,287
June 30, 1918				1	47	96	395	1,000	1,539

9. SANITARY CORPS.

The Sanitary Corps was established under the authority of section 2 of the act "To authorize the President to increase temporarily the Military Establishment of the United States," approved May 18, 1917, as per Paragraph III, General Order No. 80, War Department, June 30, 1917, as amended by Paragraph III, General Order 113, War Department, August 22, 1917.

The following table shows the strength of the Sanitary Corps, by months and by grades, from June 30, 1917, to June 30, 1918:

Table No. 173.—*Strength of Sanitary Corps, by months and by grades, June 30, 1917, to June 30, 1918.*

Date.	Colonel.	Lieutenant colonel.	Major.	Captain.	First lieutenant.	Second lieutenant.	Total.
July 31, 1917			2	4	3		9
Aug. 31, 1917			6	25	88		119
Sept. 30, 1917			8	40	257		305
Oct. 31, 1917			10	44	323		377
Nov. 30, 1917			12	76	417		503
Dec. 31, 1917			15	85	519		607
Jan. 31, 1918			25	110	611		734
Feb. 28, 1918		2	32	160	735		917
Mar. 31, 1918		3	38	214	846		1,089
Apr. 30, 1918		3	38	222	854		1,105
May 31, 1918		3	38	230	859		1,118
June 30, 1918		3	42	302	905	93	1,345

The following table shows the changes in the Sanitary Corps from June 30, 1917, to June 30, 1918:

Table No. 174.—*Changes, Sanitary Corps.*

	Number.		Number.
Dismissed from service	1	Died	1
Honorably discharged	1	Transferred to Tank Service	1
Transferred to Quartermaster Corps	2	Transferred to Ordnance Department	1
Resigned	12		
Transferred to Engineer Corps	59	Total	99
Retired	1	Total now on active duty	1,246
Transferred to Chemical Service	20		

10. CONTRACT SURGEONS.

The following table shows the number of contracts made and contracts annulled from June 30, 1917, to June 30, 1918, and the contract surgeons on duty on June 30, 1918:

Table No. 175.—*Contracts and contract surgeons.*

	Number.
Contracts:	
Made	554
Annulled	433
Pending	7
Contract surgeons on active duty	19
Contract surgeons on active duty, both male and female	123

11. UNITED STATES AMBULANCE SERVICE.

The United States Ambulance Service was established under the authority of section 2 of the act of Congress authorizing the President to increase temporarily the Military Establishment of the United States, approved May 18, 1917.

The following personnel was authorized:

Commissioned:	
Colonels	1
Lieutenant colonels	2
Majors	8
Captains	32
First lieutenants	160
Total	203

Enlisted, 160 ambulance sections, each consisting of:

Sergeants, first class	1
Sergeants	2
Corporals	1
Mechanics	2
Cooks	2
Privates, first class	26
Privates	11
Total enlisted personnel for each section	45
Total enlisted personnel authorized	7,425

Under the provisions of this law and under authority of G. O. 75, W. D., June 23, 1917, the following appointments have been made:

Colonels	1
Lieutenant colonels	2
Majors	3
Captains	30
First lieutenants	137
Total	173
Number promoted to captaincy	12
Number discharged, lieutenants	1
Number resigned, lieutenants	2

12. SUMMARY.

The following table shows the total commissioned personnel of the Medical Department for all corps, July 1, 1918.

TABLE No. 176.—*Officers, by grades, holding commissions in Medical Department on July 1, 1918.*

Grades.	Medical Corps.	Dental Corps.	Sanitary Corps.	Veterinary Corps.	**Total.**
Major generals	3				3
Brigadier generals	7				7
Colonels	157	12			169
Lieutenant colonels	363	19	3	1	386
Majors	1,975	100	42	47	2,164
Captains	6,711	222	286	96	7,315
First lieutenants	14,058	2,624	801	395	17,878
Second lieutenants			27	1,000	1,027
Total	23,274	2,977	1,159	1,539	28,949

13. ARMY NURSE CORPS.

The following table shows the strength of the Army Nurse Corps, by months, and the strength of the reserve, by months, from June 30, 1917, to June 30, 1918:

TABLE NO. 177.—*Strength of the Army Nurse Corps, by months, June 30, 1917, to June 30, 1918.*

Date.	Army Nurse Corps.	Reserve.	Total.	Date.	Army Nurse Corps.	Reserve.	Total.
June 30, 1917	259	917	1,176	Jan. 31, 1918	623	4,442	5,065
July 31, 1917	272	1,084	1,356	Feb. 28, 1918	924	5.633	6,557
Aug. 31, 1917	294	1,367	1.661	Mar. 31, 1918	1.212	7.174	8.386
Sept. 30, 1917	309	1,657	1,966	Apr. 26, 1918	1.397	8.112	9,509
Oct. 31, 1917	319	2,051	2,370	May 31, 1918	1.729	9.358	11,087
Nov. 31, 1917	339	2,978	3,317	June 30, 1918	2.000	10.186	12.186
Dec. 31, 1917	424	3,643	4.067				

NOTE.—This does not include nurses on final leave or under orders to proceed home for relief or discharge.

14. ARMY SCHOOL OF NURSING.

Upon the recommendation of the Surgeon General of the Army, presented by a formal memorandum, the establishment of the Army School of Nursing was approved by the Secretary of War on May 25, 1918.

TABLE NO. 178.—*Enlisted personnel, Medical Department, by months, June 30, 1917, to June 30, 1918.*

Month.	Number.	Month.	Number.
July	24,995	January	91,618
August	43,195	February	95,651
September	48,706	March	104,441
October	59,243	April	114.971
November	65,929	May	126,163
December	73,672	June	140,545

15. TABLES.

TABLE NO. 179.—*Strength of Sanitary Corps, by months.*

	1917					1918					
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Hospital sergeants	......	......	1	1	1	1	1	3	4	5	10
Sergeants, first class	......	11	21	32	34	57	71	84	99	113	122
Sergeants	2	18	34	75	92	128	147	182	216	235	255
Corporals	......	6	17	35	35	66	102	117	125	164	221
Cooks	......	......	2	2	2	2	2	3	7	7	7
Privates, first class	......	3	9	11	59	66	100	123	207	244	312
Privates	1	167	388	437	472	448	535	1,166	1.900	2,474	2,458
Mechanics	......	......	......	......	......	......	......	......	2	2	2
Total	3	205	472	593	695	768	958	1,678	2,560	3.244	3,387

TABLE No. 180.—*Enlisted personnel, Veterinary Corps, by months, June 30, 1917, to June 30, 1918.*

Date.	Number.	Date.	Number.
Nov. 30, 1917	324	Mar. 31, 1918	5,946
Dec. 31, 1917	1,265	Apr. 30, 1918	7,720
Jan. 31, 1918	3,063	May 30, 1918	8,806
Feb. 28, 1918	4,268	June 31, 1918	9,383

The following shows the number of civilian employees at the Surgeon General's office, by months, from June 30, 1917, to June 30, 1918:

Date.	Number.	Date.	Number.
June 30, 1917	364	Jan. 31, 1918	739
July 31, 1917	438	Feb. 28, 1918	804
Aug. 31, 1917	438	Mar. 31, 1918	884
Sept. 30, 1917	524	Apr. 30, 1918	984
Oct. 31, 1917	546	May 31, 1918	1,093
Nov. 30, 1917	601	June 30, 1918	1,154
Dec. 31, 1917	673		

XV. DIVISION OF PHYSICAL RECONSTRUCTION.

This division (special hospitals and physical reconstruction) is separate from but coordinate with the hospital division. Its work is conducted through four sections, namely: Special hospital sites, buildings, and grounds; special surgical and medical reconstruction plans, that is, development of coordinate measures for continued treatment where necessary; therapeutic use of work and other physical remedies; and information and literature.

The section for special hospital sites, buildings, and grounds assists in the selection of sites for hospitals, the designing of buildings where needed, examination of existing buildings for hospital purposes, and necessary alterations, means for the therapeutic use of work, developement of special hospital equipment, including that required for physical therapy. Personnel: Architects, medical officers detailed as required.

Section of special surgical and medical reconstruction is in charge of development of plans for the necessary special treatment of the blind, deaf, and speech-defect cases, and of various other special conditions requiring special plans. It assists various professional divisions in preparing for special features of their work. This section is operated by representatives of the divisions of head surgery, surgery, orthopedics, neurology and psychiatry, internal medicine, and genitourinary. The section devoted directly to therapeutic use of work assists in the development of plans for curative shops and laboratories. This section acts as advisers in the selection of the proper application of work in so far as the medical requirements permit, with a view to future vocation; investigation of occupational possibilities for handicapped men; also assists in the study being made by the medical officers of this division in studying the use of handicapped men in the military service. The work of this section is performed by technical advisers in occupations as applied to the treatment of sick and wounded.

The section of information and literature has charge of the analysis of reconstruction literature; educational propaganda; study of existing literature on reconstruction and kindred subjects for the information of all officers interested; the preparation of monographs for offices; and the dissemination of information concerning the reconstruction work to the public so that a sympathetic attitude will be created which will aid materially in the success of treatment.

The establishment of reconstruction activities in hospitals designated for the work of rehabilitation was preceded by much preliminary work. A large number of buildings were inspected, and locations all over the country examined as to their desirability or otherwise for the work of medicomilitary refitting.

Having in mind, also, the necessary contact of the Surgeon General's Office with the civil agents and agencies required for the vocational training, placement, and follow-up of the disabled soldier, experts were detailed to make a study of the country's industrial plants, to determine whether these might be utilized for the reconstruction activities of both existing and proposed hospitals.

Similar surveys were made of technical schools and other institutions of learning for the purpose of determining the extent to which these might be employed for both vocational and prevocational purposes.

At the request of the Secretary of War the Surgeon General of the Army called a conference of a number of governmental and civilian organizations interested in the problems of reconstruction and rehabilitation of the disabled soldiers, with the idea of arriving at the best means of administering this work in all its ramifications. The conference met in the Surgeon General's Office on Monday, January 4, 1918. As the result of the conference a committee of 15 was appointed to prepare a report with recommendations.

As a result of the work of the committee in the conference a report was finally submitted to the Secretary of War along with a tentative draft of a proposed bill. This report outlined the functions of the Medical Department of the Army and the functions of civilian agencies in carrying on the work of physical reconstruction and rehabilitation.

The tentative draft of the bill was sent to the Secretary of War but was never introduced into Congress. However, as a result of this conference a bill embracing these same principles and giving the control of the work after the soldier was discharged to the Federal Board for Vocational Education, was introduced into the Senate by Senator Hoke Smith on March 9, and into the House of Representatives by Representative Sears on March 12.

The Secretary of War approved the following policy for the physical reconstruction of disabled soldiers:

> (*a*) That hereafter no member of the military service disabled in line of duty, even though not expected to return to duty, will be discharged from service until he has attained complete recovery or as complete recovery as it is to be expected that he will attain when the nature of his diasbility is considered. The inauguration of this continued treatment will result, during the period of the war, in the saving to the service of a large number of efficient officers and soldiers who without it would never become able to perform duty.
>
> (*b*) Physical reconstruction may be defined as the completest form of medical and surgical treatment carried to the point where maximum functional restoration, mental and physical, has been secured. To secure this result the use of work, mental and

manual, will be required during the convalescent period. This therapeutic measure, in addition to aiding greatly in shortening the convalescent period, retains or arouses mental activities, preventing "hospitalization," and enables the patient to be returned to service or civil life with the full realization that he can work in his handicapped state, and with habits of industry much encouraged if not firmly formed.

Recommendations of the office of the Surgeon General concerning physical reconstruction were approved by the Secretary of War on the 6th day of May, 1918, in the following language:

> You are authorized to proceed with the scheme for reconstruction of officers and enlisted men of the Army alone without consideration of the other bureaus of the Government involved. This reconstruction to be clearly understood to end at the point where the medical reconstruction ceases, that is, the reconstruction to take place in such cases of officers and enlisted men as come under proper medical treatment by the War Department, leaving for other reconstruction purposes the subsequent treatment after discharge from the care of the Medical Department.

On May 10, 1918, arrangements were made with the Bureau of Medicine and Surgery, Department of Navy, whereby the Surgeon General was given charge of such sailors and marines as require or may in the future require physical reconstruction.

The Surgeon General of the Army has (June, 1918) assigned the following general hospitals for the reconstruction of disabled soldiers and sailors, both from overseas and from training camps in the United States:

Disability.	Hospitals.
Insane	St. Elizabeths Hospital, Washington, D. C.; Genera Hospital No. 4, Fort Porter, N. Y.
Functional neuroses (nervous diseases)	Plattsburg Barracks, N. Y., Fort Des Moines, Iowa.
Epileptics	Plattsburg Barracks, N. Y.
Pulmonary tuberculosis	Fort Bayard, N. Mex. General Hospital No. 16, New Haven, Conn.; General Hospital No. 17, Markleton, Pa.; United States Hospital, Waynesville, N. C.; General Hospital No. 8, Otisville, N. Y.
Cardiovascular diseases	General Hospital No. 6, Fort McPherson, Ga.; General Hospital No. 9, Lakewood, N. J.; Fort Des Moines, Iowa; Corpus Christi, Tex.
Chronic rheumatism	General Hospitals Nos. 6 and 9, Fort Des Moines, Iowa.
Disabilities due to being gassed	General Hospital No. 2, Fort McHenry, Md.
Other general medical cases	Corpus Christi, Tex., General Hospitals Nos. 6 and 9; Walter Reed General Hospital, Washington, D. C. Fort Des Moines, Iowa.
General medical and surgical cases	General Hospital No. 3, Colonia, N. J.
Those requiring orthopedic treatment	General Hospitals Nos 6 and 9, Walter Reed General Hospital, Letterman General Hospital.
Amputations	Walter Reed General Hospital, Washington, D. C. Letterman General Hospital, San Francisco, Cal.
Total deafness, speech defects, and purulent otitis media.	General Hospital No. 11, Cape May, N. J.
Blindness or near blindness	General Hospital No. 7, Roland Park, Baltimore, Md.
Venereal diseases and its sequelæ (where venereal disease is major disability).	General Hospital No. 5, Fort Ontario, N. Y.
Wounds and injuries and other surgical conditions of the genitourinary system (where the injury or wound is major disability).	General Hospitals Nos. 2, 6, and 9; Walter Reed General Hospital, Washington, D. C.; General Hospital No. 2, Fort McHenry, Md.; Letterman General Hospital, San Francisco, Cal.; Corpus Christi, Tex.
Wound or injuries involving the head, including eye, ear, nose, and throat, face and jaw.	General Hospital No. 11, Cape May, N. J.
Special service of diabetes	General Hospital No. 9, Lakewood, N. J.; Fort Des Moines, Iowa; Letterman General Hospital, San Francisco, Cal.

The partial or complete personnel and the full minimum equipment necessary for curative occupation is in active operation at General Hospitals Nos. 2, 6, 9, 11, 17, and Walter Reed.

Staffs for the aforementioned general hospitals to care for the sick and wounded have been assigned from the professional divisions of the Surgeon General's Office.

As rapidly as conditions permit reconstruction work at all of the hospitals named is being developed.

At New York and Newport News, the ports of debarkation, the necessary organizations for the classification and rapid distribution of the disabled men from overseas to the reconstruction hospitals has been completed and is in satisfactory working condition. Division surgeons have been ordered to report the individual cases of disability who may be reconstructed now in the base hospitals of cantonments, that they may be transferred to the general hospitals where reconstruction work is carried on.

One feature of reconstruction which merits especial mention is that of artificial appliances. The artificial-limb problem has already at the time of our entrance into the war become a serious one abroad; the supply was far short of meeting the demand, and in many particulars the substitute failed to permit the restoration of function of the lost member to the degree that it seemed reasonable to expect. It appeared wise, therefore, to study the problem as exhaustively as possible. Accordingly one member of the division of military orthopedic surgery was assigned to this work and the division of physical reconstruction turned over to him the questions of equipment and supply in which it was interested. Further, the Surgeon General authorized the establishment of a laboratory for investigation and experimentation along the lines of artificial limb construction. The proper understanding of the problem necessitated its study from the standpoint of the amputation, the construction of the artificial limb, and the occupational demand to be made upon the substitute.

The subject of amputation had to be studied from the viewpoint both of the surgeon and of the artificial-limb maker. Accordingly the literature was carefully reviewed and a questionaire sent out to the artificial limb manufactures of the United States. The results of this study were embodied in an article on "The Relation between Amputation and the Fitting of the Artificial Limb" and reprints have been distributed to the surgeons of the Army.

The experience in Europe has shown the value of the temporary appliance. The most useful of these has proven to be the plaster peg leg, which, if desired can be supplied with an articulation for the knee. It is accordingly planned to use this for the earliest period, applying it when the wound is healed or nearly healed. A detailed description of the manner of making this appliance as well as a similar appliance for the arm, was also published in the Military Surgeon and reprints of the article distributed. Such a temporary plaster leg may be worn for a long period, even as long as six months, new sockets being made as the stump shrinks.

There are, however, many advantages in having the patient begin, as early as possible, to use an appliance similar in type to the regular artificial limb, as he is thus prevented from acquiring bad habits of walking, learns something of what modern artificial limbs will really do (thus being able to make a more intelligent choice of a permanent leg), and the fitting of the permanent leg can be delayed for as long a time as may be required, either by the condition of the stump, or the difficulty of manufacture. A simple artificial limb of this type, which is adjustable both for length of leg and size of stump, is now being thoroughly tested out in order to determine its value. Should this plan prove feasible, it will enable the amputated soldier to resume his work at a much earlier date than is usual in such cases, and will help very materially to solve the problem in case the number of our amputations should be very great.

The problem of the artificial arm is being studied, particularly from the standpoint of the requirements of the one-armed; attention is being given also to the needs of the individual occupation. The attempt is being made similarly to provide some form of temporary appliance which will satisfactorily meet the demands of the first six months. It is now believed that a satisfactory model has been devised.

Considerable progress has already been made also in the adaption of manual occupations and of games to the different types of amputation. It is believed to be of especial importance that the amputated, particularly those who have lost arms, be retrained to play. Hence this feature of the work of reconstruction is being given intensive study.

In these and other respects, therefore, the division has been making preparations thoroughly to fit itself for carrying out the treatment of soldiers and sailors suffering from disabilities of the arms and legs, when they shall be returned to this country.

On March 1, 1918, an officer was designated by the Surgeon General to direct the work connected with the education of the deaf soldiers and sailors and those with speech defects. On March 4, 1918, he was relieved from duty in the section of otolaryngology, surgery of the head.

At the present date there are available for teaching purposes 70 teachers without restrictions, and 46 teachers with certain individual restrictions. By a similar method 37 teachers have been obtained for corrective speech work.

Considerable difficulty was encountered in obtaining the proper institute in which the work was to be started, which has resulted in considerable delay in the practical part of the enterprise. First a hotel, the Mount Holly Inn, in Baltimore, was offered. Delay resulted in the lease being withdrawn. Efforts to reopen the lease after it had been accepted by the General Staff failed to accomplish its purpose. As a result of this failure the hospital division designated General Hospital No. 11, Cape May, N. J., as the temporary location for the section of defects of hearing and speech. This was authorized April 23, 1918.

On September 29, 1917, an officer was assigned to the division of physical reconstruction and special hospitals. The official assignment read, "as a representative of the section of surgery of the head." This officer was then directed to prepare plans, first for professional education of "returned" handicapped soldiers; second, plans for "reconstruction aides."

On October 15, 1918, he was relieved of these duties and definitely assigned to prepare plans for the reeducation of blind and deaf soldiers. On or about November 15 he procured a splendid tract of land with two large dwellings as a plant in which to conduct the teaching of the blind. On November 15 he located a place in Baltimore—Mount Holly Inn Hotel—which provided ample buildings and grounds for the teaching of the deaf. The former was accepted at $1 a year; the latter was only accepted after the offer had been withdrawn.

On October 15, 1917, he called to Washington 10 of the leading workers for the blind in the United States. To them was submitted, for criticism and correction, a plan for the reeducation of blinded soldiers. They formally recommended the adoption of corrected plans on October 17. The Surgeon General gave them his official sanction on October 19. Since that time he has been fully occupied in their development. This has required workers to go abroad, a director of teaching, and all the subordinate teachers for the new school, General Hospital No. 7, Baltimore, Md. Through the architects drawings for barracks for the military detachments, schools, swimming pool and gymnasium, manual training, recreation, etc., were made for General Hospital No. 7. An appropriation to cover the expense of this building program was procured and the buildings are now 98 per cent completed. An appropriation for the equipment of the buildings was procured and the equipment has all been ordered and 20 per cent received.

A survey has been made of all the blind shops in this country. The survey has been statistically recorded. A survey of 2,000 successful blind men was made to determine the subjects to be taught returned soldiers, so that the teaching might result in the replacement of the blind in wage-earning occupations.

Hundreds of autobiographical sketches have been asked for and received from the blind. The purpose of these is to enable us better to avoid the pitfalls which encircle the blind.

On June 8, 1918, the Surgeon General requested the American Red Cross to organize the Red Cross Institute for the Blind. This institute is to have the social and economic supervision over the discharged soldier. Just before this was accomplished an agreement was reached by which General Hospital No. 7 would serve the Navy—sailors and marines—as well as the Army. The Red Cross institute has added to its duties sailors and marines. At the request of the American Red Cross the Surgeon General assigned an officer as director of the institute in addition to his regular duties.

The subdivision of education was begun in October, 1917. The fall and winter (1917) months were occupied by the members of the division in the study of the educational work being done for disabled soldiers in Canada and European countries through reports, publications, and conferences with vocational officers and medical officers from some of these countries. They made also an investigation of various industries in relation to the possibility of employing disabled men. Also information was collected from several thousand cripples in the United States relative to their occupations, so that it would be known what can be done best by men with various types of disabilities. Plans were made for educational work in the hospitals and for the further reeducation of those injured, so that they would be able to enter their previous occupations or some other suitable gainful occupation. These plans were included in Senate Document No. 173, being a letter from the Secretary of War, transmitted in response to a Senate resolution of January 3, 1918, "A report of the Surgeon General of the Army on the rehabilitation and vocational reeducation of crippled soldiers and sailors." The plans followed at present in the educational work of the hospital follow closely those outlined in this printed document.

Vocational work was started in General Hospital No. 2, Fort McHenry, Md., early in March, 1918, under the immediate supervision of Maj. Henderson. There were in the hospital at that time between four and five hundred patients, approximately 200 of whom were over-seas men. Two or three volunteer teachers and several of the returned patients were used as instructors. Basketry, typewriting, telegraphy, and academic work were the first subjects of instruction. Early in April the larger number of patients in the hospital were distributed to other hospitals, breaking up practically the educational work started. As rapidly as new patients were received work was started again. At the present time (June 25, 1918) approximately 11 instructors and 250 patients are engaged in educational work. Instruction is given in academic subjects, including reading and writing to illiterates and others unable to read or write in the English language, and further general education to others who left school early in their career; also in stenography, typewriting, telegraphy, automobile driving, automobile repairing, motor mechanics, drafting, barbering, shoemaking, carpentry, basketry, chair caning, printing, tailoring, and cabinetmaking. The buildings authorized for the educational department have not yet been erected, but any available space, wherever it can be obtained, is being used.

Instruction at Walter Reed General Hospital covers practically the same subjects as at Fort McHenry. A department of oriental-rug repair work has been added. A total of 25 instructors is engaged in the educational work, and approximately 300 men are taking instruction. In addition to this, 16 women are employed as occupational aids, under the chief of the educational service. An old two-story residence on the hospital grounds is used for curative workshops and for headquarters for the educational officers. New buildings are under way to house the entire educational and curative workshop program. A greenhouse and 12 acres of land, loaned at no expense to the hospital, is used for instruction in gardening.

Equipment at General Hospital No. 9, Lakewood, N. J., is in many ways more satisfactory. A building adjacent to the hospital, formerly used for an indoor tennis court, 44 by 88 feet, is now used for the workshop. In this building are a carpenter shop, machine shop, shoe-repairing shop, printing shop, and automobile-repair shop. An inclosed veranda of the hospital building, 12 feet wide and 100 feet long, is used for academic classes, typewriting, telegraphy, drafting, etc. The chief of the educational service is Mr. Fred P. Reagle, vocational supervisor of the schools of Montclair, N. J. Assisting him are 17 instructors. A unique feature of the equipment is a linotype machine, loaned for the duration of the war by the Mergenthaler Co., on which a few men are being taught linotype operating. A plumbing shop for taking care of the plumbing in the building, an electric-light plant and repair shop, a steam laundry, a bakery, and a barber shop are all used in connection with the educational work.

Work at Fort McPherson, Ga., was begun under the direction of John E. Riley, formerly superintendent of schools, Holyoke, Mass., on April 15, 1918. A month later classes had been organized in 14 subjects, as follows: Motor mechanics, telegraphy, wireless telegraphy, typewriting, mechanical drafting, cabinetmaking, carpentry, harness repairing, poultry raising, shoe repairing, reading and writing English, penmanship and bookkeeping, printing, and newspaper reporting and editing. In addition, a limited number of patients were receiving training in trades or occupations in the post repair shops under the direction of the foreman of the shops, as follows: Tin repairing (sheet metal work), plumbing, stove repairing, steam fitting, blacksmithing, electric wiring, painting (interior, signs, wagons, autos), tailoring (repairing, pressing, cleaning, etc.), barbering, baking; gardening and agriculture have just been added. Approximately 150 men are taking courses; 11 men are used as instructors.

In General Hospital No. 17, Markleton, Pa., work was begun May 27, 1918. But few courses are offered at present, as this hospital is largely for tuberculosis patients, and it has not yet been determined what work can best be given them. Six instructors have been inducted for the work. Woodworking and gardening are the two principal occupations.

In addition to the above hospitals, a staff for educational work has been secured for General Hospital No. 3, Colonia, N. J., General Hospital No. 15, Corpus Christi, Tex., General Hospital No. 16, New Haven, Conn., Letterman General Hospital, San Francisco, Cal., and base hospital, Fort Des Moines, Iowa.

Instructors are commissioned officers, enlisted men, or civilians. The General Staff, May 15, 1918, authorized the commissioning of 1 major, 3 captains, 10 first lieutenants, and 10 second lieutenants as educational officers of the hospitals. On June 22 the War Department, with the permission of the Civil Service Commission, authorized the appointment of 24 curative workshop instructors as civilians, at salaries ranging from $1,800 to $3,000 a year. The instructors inducted into the service have been class 1-A men, or draft men classified for limited service, who were found qualified and who had had successful experience in educational work or in technical work. Disabled men returned from overseas are being used for instructors as much as possible. Men with technical training without experience in teaching have been given teaching work under the supervision of the chief educational officer. When cured and ready for discharge, those whose services were especially desirable have been transferred into the Medical Department and retained as instructors.

The organization known as reconstruction aides was transferred from the division of orthopedic surgery to the division of physical reconstruction on or about April 1, 1918. At that time this organization consisted of women trained in two different ways: (1) Those trained in physical education with a special knowledge of physiotherapy, ready to do the work of massage and other forms of physiotherapy; (2) women trained in crafts, for the purpose of teaching these crafts in the wards to patients who are not able to go into the shop for curative work. Many aides have been assigned to work in Walter Reed and other hospitals in which reconstruction is being carried on.

At first no allowance for quarters was made. Therefore, from February to May 18, 1918, these women received no allowance for quarters and did not begin to receive their pay, owing to the lack of necessary machinery, until April. The Red Cross, on June 24, satisfactorily made up the deficit in each individual case. At present reconstruction aides receive $50 pay ($60 overseas), with quarter and subsistence.

On April 13 to 27, 1918, an exhibit of handcraft work was held i the Surgeon General's office. A week later an exhibit of work wa held at the handcraft guild as part of their general annual exhibit The Smithsonian Institution stated that they would be glad to hav an exhibit some of this work done by the men in the hospitals.

On December 27, 1917, an officer was assigned to duty of providin such literary material, translations, reviews, abstracts for official and others, especially in the services of special hospitals and reconstruction, most likely to assist in carrying on the special work.

A list of monographs, articles, etc., in Italian, French, English and German on the general subject of reconstruction and reeducatio of disabled soldiers and sailors was begun. Abstracts from materia sent by courtesy of the Canadian Military Hospital Commission hav been made.

Preparation of abstracts of work done in most foreign countries on reconstruction hospitals and vocational schools, containing lists o books and articles in all languages on the general subject, has bee continuously carried to date.

In January, 1918, an arrangement was made with the librarian o the Surgeon General's library to allow a representative of thi division to occupy daily a desk in his building half a day for th purpose of research; also to have the assistance of Col. Owen i preparing photographs and other reproductions of maps, plans, etc. for this work. Four mimeographed and illustrated bulletins, giving a complete account of rehabilitation of the soldier in all the belligeren countries doing extensive work of this kind, have been published and issued chiefly to medical officers of the Army. These bulletins were discontinued in June, 1918, and their place taken by Carry On a monthly magazine edited by a board created by the Surgeon General.

Since educational propaganda of a proper and wisely controlle character is generally regarded as essential to a clear understandin of reconstruction work by the public and by the various agencie necessary for its success, in addition to the use of the bulletins firs mentioned and the magazine, Carry On, many lectures and addresse dealing with the subject have been given in various towns and citie by officers of this division assigned for the purpose. The chie instance of public education and propaganda is the meeting of the American Medical Association in Chicago on June 13, 1918, when an entire day was given over to the reading and the discussion (in the miscellaneous section) of papers on the whole subject of physical and vocational reconstruction of the disabled soldier and sailor by officer of this division and others. Col. Billings was chairman of the section the sessions being held in the Auditorium, which was crowded by mixed audience of members of the association and the public.

This propaganda, so vital to the creation of a healthy public sentiment, is now being carried on through all the usual channels o publicity—magazines, newspapers, moving pictures, addresses befor medical and other societies, and by means of a wider publicity secured by the (unlimited) use by newspapers of the contributions t Carry On. In this connection it may be said that the initial issu

250,000 copies) of this magazine included 25,000 names and addresses f Army and Navy medical officers, dentists, and Army nurses, and hat this part of the mailing list will be permanent, while the mailing ist of future issues (of about 75,000 copies) will probably be varied rom time to time so as to reach as large and as widespread a contituency as possible.

XVI. Division of Medical Department Training.

The training scheme of the Medical Department for the war with Germany had its foundation in the field service and correspondence chool for medical officers, Army service schools, Fort Leavenworth, Kans. This medical officers' school was established in 1912. Its purpose was to develop and standardize a scheme of training for medical officers such as had not previously been given. Up to the outbreak of the war with Germany it had annually graduated classes of medical officers of the Regular Army and Organized Militia, and conducted extensive correspondence courses with a large number of Regular and Reserve Corps medical officers. This school developed the nucleus of men who were later to make possible a broader raining on the Mexican border and throughout the Army and Organized Militia.

A second and more elaborate scheme of training, to include not only officers but enlisted men, was carried out on the Mexican border in 916–17 by the Regular and militia troops there mobilized, under a comprehensive plan, approved by the commanding general Southern Department, and issued on August 4, 1916, as "Memorandum on nstruction of medical officers and sanitary units." Under this memorandum the training of medical officers and enlisted men of the Medical Department was prescribed, standardized, and enforced. t gave many a basis information which they were shortly to be called upon to use on a vast scale in the training of a mass of newcomers into an immensely expanded Medical Department. The great value of this border scheme of instruction in carrying out the final great Medical Department war training can scarcely be overstimated. Through it a considerable number of more or less ualified instructors were created and the best type of training necessary to meet needs became apparent.

Hence, when the final need for training suddenly developed, the Medical Department was in a way prepared to meet it. On the day hat the United States declared war on Germany a letter urging the mmediate necessity of instituting measures for the training of Medical Department personnel was submitted to the Surgeon General.

The necessary plan for its practical execution was prepared after onference with the Bureau of Militia Affairs, which had just prepared short course of armory training for the medical department of the Organized Militia.

This report and plan was, on April 21, 1917, forwarded by the Surgeon General to The Adjutant General, with the following remarks:

> 1. The attached scheme affords a plan for starting, without delay, the necessary aining of the officers and men of the Medical Department. It can be modified later experience may warrant. It proposes to carry out an intensive training of both ficers and enlisted men, both in special training camps and in addition to necessary rvice with troops. For the former class, the course covers three months; for the tter, six months.

2. The nature and scope of the proposed course, sample of daily routine, list of textbooks, etc., are given therein.

3. For the above instruction purposes, it is believed that four medical training camps should be established. The Medical Department, among other cogent reasons, can not furnish instructors or equipment for more than this number. They should be established in conjunction with the general officers' training camps at Fort Oglethorpe, Fort Riley, Leon Springs, and Fort Benjamin Harrison, and later, if found desirable, one on the Pacific coast; but if a suitable camp and maneuver ground can be found on the Atlantic seaboard south of New York, this should be substituted for Fort Benjamin Harrison.

4. If approved, I recommend that the necessary facilities for shelter, messing, supply, etc., be provided without delay for the use of these training camps at the above points.

5. Authority is also requested for the bringing to these training camps of a training staff of approximately one officer instructor to each fifty (50) student officers, together with such enlisted personnel as may be necessary.

6. I also request that one ambulance company and one field hospital be sent to each of these training camps, and that three additional ambulance companies and three additional field hospitals be organized at each without delay. Also that each training camp be further provided with an enlisted force equivalent to six regimental sanitary detachments. The above personnel is necessary to visualize medical organizations, equipment, and fieldwork, and serve as a service corps in looking after the training camp and the many hundreds of student officers to be in attendance.

7. Authority is further requested for the establishment of a training course for the sanitary personnel with troops, the appointment of officers as training officers with divisions or separate camps, and the establishment of a system of inspection sufficient to insure the efficiency of the same.

8. It is requested that this matter be given decision as soon as possible. It is understood that the general training camps are to begin operation on May 15. The Medical Department should begin its work at least by that time, and if possible, one or more of its camps should be put into operation before that time.

9. Attention is invited to the fact that the work of the Medical Department actively begins the moment troops are raised or brought together, and that the equipment of these training camps, the detailed organizations of the training course, and the provision of the staff of instructors should therefore be made as soon as possible.

The plan was approved and acted on by the War Department as follows:

2581692 1st Ind.

War Dep't., A. G. O., May 11, 1917.

To the Surgeon General, with the information that the establishment of additional sub divisions of the work in the office of the Surgeon General, as referred to herein, is approved with the following exceptions:

That no increase in the Medical Corps in number or grades shall accrue therefrom;

That the chief of the sanitary section may consult with, and make recommendation to the Quartermaster General in regard to construction of a sanitary character, and may also recommend sanitary orders, but all orders will be issued in the way now prescribed by regulations; and

That four medical training camps, to begin June 1, 1917, with an attendance of officers for training at each to be not over 600, are approved; and that the tentative scheme of instruction is approved and will be submitted in form to be published as a general order.

It should here be mentioned that the proposed medical officers' training camp at Leon Springs, Tex., was never established, through inability to provide the necessary staff of instructors therefor. However, authority was later received to raise the quota of student medical officers from 600 to 1,000 at each of the other three camps, with the net result of an increase of 600 medical officers in all.

To each of these camps a training staff of selected regular medical officers, each one recognized as an expert in his line, was assigned. These staffs varied from 10 to 12 officers.

The work of instruction was at once started. As the first need for medical personnel was obviously to be with the regiments and divisions shortly to be organized, a course was worked out to meet such need for the zone of operations, and this still remains as the basic course of the training work. Later, courses for line of communications work, for special training in various medical branches, and courses for the several nonmedical branches of the Medical Department were organized.

The basic course of training to be carried out at these medical training camps was covered in a letter of instructions. It may here be remarked that this basic course has been found satisfactory, practically without change, after a year's practical trial.

The camps opened on June 1, although an effort was made to have orders for student officers amended so as to have them report on June 15. This effort for delay failed through clerical error in the War Department, and considerable numbers of student medical officers arrived at these camps on June 1, and thereafter. This, though regretted at the time, proved to be fortunate, as it gave an extra fortnight of much needed training to many.

What this training meant may be inferred from the fact that on August 27, 1917, one week before drafted men were to arrive at National Army divisional encampment, there left from each medical training camp five trains of medical officers and enlisted men of the Medical Department. Each train went to its separate camp and contained a quota of about 60 medical officers and 310 enlisted men, who were not only suitably organized for the formations with which they were to serve, but in each detachment officers and men were specially selected for fitness in the duties which they were intended to perform.

These 900 medical officers and 4,600 enlisted men went to the 15 divisions that were ready for them, and were able to provide for themselves, attend to sanitary matter, and arrange for handling of recruits in great numbers in advance of the arrival of the latter. By this means the Medical Department met the strain imposed upon it at the start, and it has since proved itself equal to all later emergencies by drawing from the trained reserve in the training camps.

It should be mentioned here that at this time a considerable number of physicians from civil life were entering the Army and were being sent direct to service with troops at posts and camps, without having the benefits of training given at a medical officers' training camp. It was realized that unless attention was drawn to their shortcomings, and a way prescribed for their remedy, that outside of the daily routine little, if anything, would be done in preparation for future and probably quite dissimilar duties.

Accordingly, a letter of instructions was sent to all department and Regular Army division surgeons similar to that given above as outlining the instruction at medical training camps. It was realized, however, that many of the facilities at the medical training camps would not be available at posts, garrisons, and small camps, and the course at such places was therefore appropriately modified. A full course of reading was everywhere prescribed, with such practical fieldwork as local facilities afforded. Commanders were charged enforcement of the requirements of the course, the Inspector General's Department being asked to specially check up this matter. On the whole, this garrison training has been very helpful and a vast amount of work has been done by untrained medical officers who, in the absence of such guidance, would neither have recognized its need nor the nature and manner of attempting it.

The next step of instruction was that for the training of medical personnel with divisions. On October 3, 1917, a letter of instructions was sent to all division surgeons, prescribing a course of training effective November 1 to be carried out as rapidly as local conditions permitted and to be concluded only when the Medical Department personnel had demonstrated reasonable qualification therein before a board of medical officers. The total ground to be covered approximated that included in the medical training camp course, and a ''training officer'' for each division was ordered designated. As each division contained officers and men who had practically completed the course at training camps, others who had only partially completed it, and still others who had not been trained at all, it will be realized that it was no easy task to give each individual the exact training necessary to remedy his deficiencies. However, this training has been well carried out and with excellent results. Divisions in which much sickness occurred during the winter, or in which there was a rapid rotation of recruits, suffered a proportionate delay in completing trainage.

After covering the prescribed course, and thereby securing the fundamental training of the great majority of medical personnel, no further medical training was officially required in divisions, it being believed that it could safely be left to division surgeons to require the proper training of such new medical officers and enlisted men as might require training after joining. Also it was believed that the prescribed course of training would furnish any necessary number of instructors for any later course of instruction.

In the late fall it became apparent that a certain proportion of medical officers who had gone direct from civil life into hospitals were not being qualified for their duties as rapidly as desired. The division of hospitals was requested to take steps to rectify this condition, which it did by the issuance of a letter dated November 3, and a memorandum in detail dated November 15. In both of these a course of study, training, exercises, clinics, etc., was prescribed.

It later became probable that a hostile propaganda furthered by an unthinking newspaper sensationalism would call the professional competency of Army medical officers into question. It was also apparent that a certain number of medical officers who were not giving satisfaction in their present duties were probably ''misfits'' rather than ''unfits'' and merely required assignment to a different kind of duty in order to render efficient service. Accordingly, letters on December 14 were sent out and put into operation. Under their provisions a certain number of medical officers were assigned to other duty, while a much smaller number were found to be professionally unfit and were discharged from the service. When the criticism which was apprehended finally developed, as it did six weeks or more later, the alleged deficiencies—never at any time actually of any great importance—had already ceased to exist as a result of this official readjustment and weeding out.

A large number of schools for the training of enlisted men in special work was early developed. These enlisted men's schools included those for the making of noncommissioned officers, nurses and ward men, dispensary assistants, surgical assistants, clerks, cooks, chauffeurs, and gas-engine mechanics. Classes of medical officers and enlisted men in automobile maintenance are also maintained at the Carnegie Institute, Pittsburgh, Pa.

These schools for enlisted men have performed a most valuable service and have turned out reasonably qualified men in great numbers along the above lines.

The medical training camps have also been required to organize, maintain, and supply a large number of practically every formation which the Medical Department provides. Some of these are permanently attached to the camps as training units: others are provisional organizations without official status but used for training purposes until needed for conversion into new official organizations. Still others are organized solely for the purpose of being sent away at an early or later date.

It will be at once apparent that the creation of sanitary organizations at medical training camps is tremendously facilitated by a sufficiency of trained supervising officers, an immense number of student officers from whom to select individuals possessing the special military and professional qualities called for, and by many thousands of enlisted men coming from every conceivable walk, profession, trade, and handicraft in civil life. An organization is thus built of carefully selected officers and men, each chosen for their ability to satisfy a certain specific need and perform a certain duty to best advantage. Misfits are avoided.

Besides the three training camps already mentioned, a similar camp was established at Fort Des Moines, Iowa, for the training of colored medical officers and colored enlisted men of the Medical Department. Its official capacity was 125 officers and 1,000 enlisted men, and it was in operation between July 21, 1917, and December 1, 1917, when the need for colored medical officers was satisfied. The training given in this camp was in regimental work only, as it was understood that colored sanitary personnel would habitually be attached to colored organizations.

Regarding the allowance of personnel for the Medical Department which was sent to camps for training, both in respect to officers and enlisted men, it may be stated that this has never been sufficient, as demonstrated by the fact that the services of the great majority thus sent to camps were so imperatively demanded outside as to cause their being ordered away before completion of their training course. There have been instances in which enlisted men have been sent away after arrival as soon as they could be equipped, and of medical officers who could be held for training, but two or three weeks. Despite every effort to create a fully trained reserve of officers and men, this has not been possible. The only "reserve" the Medical Department in this country has had has been the officers and men under training, and this training has been, and must be, considered as a secondary to meeting the actual needs of the Medical Department in caring for the sick and disabled.

There has been constantly a tremendous shortage in the enlisted personnel of the Medical Department, varying from one-fourth to one-third of the total number which should have been enrolled in its service to comply with existing standards of organization. This shortage in gross enrollment has seriously interfered not only with the number of enlisted men who could be trained in medical training camps but upon the length of time during which they could be allowed to remain under such training.

As to medical officers under training, their number has been sufficient to fill all drafts made on the medical training camps, but not sufficient to insure that officers so drafted would at all times be adequately trained.

The needs of the Medical Department require that 3,000 medical officers, 500 officers of the Dental Corps, Veterinary Corps, and Sanitary Corps, and 35,000 enlisted men of the Medical Department shall, as a minimum, be constantly under training.

Recognition must here be made to the wonderful spirit manifested by both officers and men in all these training camps, a psychical quality common to them all. It represented the spirit of service in its broadest and best sense, for many officers who responded to the call to the colors did so at great sacrifice. It was particularly this class of officers which had given up most which was most apt to make light of difficulties and ignore the discomforts incident to the establishment of these camps. All were imbued with a spirit of patriotism, and of loyal desire to make their profession and corps excel in the service of the Nation.

Discipline has been excellent and the need for punishment for military offenses rare. The camps have been governed not so much through the fear of court-martial as by the highly developed spirit of cooperation which has flourished in the student body, both commissioned and enlisted. There has been a pride in exemplary conduct and in the efficient performance of duty, which has largely rendered unnecessary any official pressure for the enforcement of orders.

Each camp has published a "year book," profusely illustrated with its camp scenes, which is an expression of camp enthusiasm and loyalty. The last of these books to be published, that of the camp at Fort Riley, is far larger and more elaborate than its predecessors from the other camps.

Besides facilitating the acquirement of necessary military information and training in the most effective and shortest way, these training camps have had a most profoundly beneficial effect on the mental attitude of the medical profession toward the military service. They have explained the reasons for many not always simple relations, and have proved a most useful bond of mutual understanding and good feeling between the regular medical officers and those of the Reserve Corps.

The camps also have done great things for the profession and country. They have produced thousands of excellent practical sanitarians who, after the war, will never countenance such sanitary faults as have been acquiesced in the past. They have taught the medical team work and the advantages of mutual utilization of special services among practitioners who heretofore regarded each other too much as business competitors. They have shown thousands how to organize and administer hospitals whereby, after the war, many a small community now thus unprovided will acquire its own. They have taught medical men not only how to be officers but to be better doctors and better citizens.

The system of Medical Department training has been of the greatest value in promoting the efficiency of that department. The system has reached into every part of the Army, sought out the medical personnel, and required the latter to benefit along common lines of instruction. The whole theory, outside the training camps, was, after the day's duty was done, to systematically learn in advance how to handle the dissimilar duties sure to come with future change of status and environment. In the much more intensive training of the medical training camps it is a safe estimate to say that upward of 10,000 medical officers and upward of 40,000 enlisted men of the Medical Department have, up to the date of signing this report, participated. From now on, until the war is over, it is desired that all medical officers and at least a major fraction of the enlisted medical personnel shall receive the medical camp training.

XVII. Dental Service.

1. ENROLLMENT OF DENTAL OFFICERS.

The records show when this Government entered the present war the American Army had 86 dental officers, 18 of whom were captains and the remainder first lieutenants, and although our dental law permitted dental officers to advance to the grade of major, this was only possible after said officer had a record of 24 years of service and limited the number to eight, regardless of how many there might be who had served the required 24 years. Of the 86 then on duty, only 55 were stationed in the United States, and these were widely scattered.

Although a law existed at this time which permitted the organization of a Dental Reserve Corps, no rules or regulations had been promulgated to organize such a corps until after we entered the present war. and although many dentists were eager to enter the Dental Reserve Corps, the early plan pursued made it necessary for an applicant to forward his request to the Surgeon General's office. The formal application was then furnished to be filled out and returned to Washington. The applicant was then communicated with and advised when the next board was to meet in his own State or an adjacent one, with the result that many days or weeks would elapse from the time the applicant would first apply until his completed papers would arrive for final decision. To prevent, if possible, this delay, the chairman of the committee on enrollment and legislation of the dental committee of the General Medical Board presented to the Surgeon General, on June 1, 1917, the plan whereby he was to be permitted to select representative men of the dental profession who, by education and experience, were well qualified to give professional examination to any applicant who desired to be commissioned in the Dental Reserve Corps. This request, although most unusual, was immediately accepted and authority granted. Twenty-four hours thereafter preliminary dental examiners were appointed in every State in the Union.

The men appointed as preliminary dental examiners were the deans of the well-recognized dental institutions, the secretary of each of the state dental examining boards, and such dentists in addition as the service demanded.

The end result of the appointment by the Surgeon General of the preliminary dental examiners is found in the fact that although on the day of its authorization, June 1, 1917, or relatively two months after the beginning of war, there were only five officers in the Dental Reserve Corps, yet we find on September 18, 1917, or three and one-half months thereafter, all examinations for general practitioners were discontinued, as the War Department had a sufficient number of commissioned dental officers and completed applications on file for action to care for the present and immediate future needs of the Army.

Since the declaration of war the number of dental officers in the Army has increased from 86 in the Dental Corps, Regular Army, to 212; National Guard, from nothing to 253; Dental Reserve Corps, from nothing to 5,372; making a total of 5,837, or a sufficient number to supply the quota now being assigned for an Army of 5,000,000, which gives to this nation a greater number of dental officers, subject to military call, than all nations combined represented by the term "The Allies."

The following two facts are considered worthy of being recorded: (1) The commission of first lieutenancy was tendered nearly 6,000 dentists, and all but 139 of these have accepted; (2) although the Dental Reserve Corps of the Army is authorized for its present strength to have 2,118 captains and 1,265 majors, there have only been 250 promoted to the grade of captain and 65 to the grade of major. This can be accounted for by the splendid plan that has been followed in regard to the question of promotion, for here we find that every dentist coming into the service must accept the grade of first lieutenant, and he can not be advanced until after being placed on active duty, and then only does he become eligible when he has been recommended by his superior officers through military channels.

2. DENTAL LEGISLATION.

On October 6, 1917, a dental law was enacted by the Senate and House of Representatives, in Congress assembled, and approved by the President, which gave to the Dental Corps of the Regular Army the same grades and percentages within the grades then allowed or that might thereafter be allowed by law for the Medical Corps of the Regular Army. This bill was referred by the Surgeon General to the Adjutant General of the Army for interpretation, and the decision was reached that under the present strength of the Army, the Dental Corps was authorized to have 9 colonels, 17 lieutenant colonels, and 67 majors, the remainder of the authorized strength of the corps to be distributed in the grades of captain and first lieutenant.

3. FREE DENTAL SERVICE.

On August 19, 1917, with the approval of the Surgeon General, permission was sought from the Provost Marshal General to secure franking privileges for the Preparedness League of American Dentists, and concurrence in a plan which would make it possible for all men who had been accepted for general military service to be advised to appear before the members of that organization to have any urgently needed dental operations performed, without expense to themselves or to the Government, previous to their arrival at camp. This work was considered imperative at that time, for the reason there was only being assigned one dentist per thousand of the total strength of the Army, and also the manufacturers were unable to meet the excessive demands made upon them in the early days of the war.

The Provost Marshal General heartily approved of the proposal made, and gave every assistance possible, even urging by personal letter the governor of each state to inform all local and medical advisory boards that he approved of their appointing a dentist for volunteer service on each board to aid in the physical examinations of all men called before them, and expressed it as his opinion that the patriotic service offered by the dental profession would be of great value not only for the comfort, but for the efficiency of the National Army.

Following the department's approval, a Dental Reserve Corps officer was assigned to the Preparedness League headquarters in New York, who, in cooperation with the officers of that organization, has increased in the past year from about 4,000 to 16,000, and as a concrete example of what the officers and members have contributed in the form of gratuitous service for men who have been accepted for general military service, it is here recorded that they have furnished the material and performed 375,000 gratuitous operations for men selected for general military service. It should also be stated that through their activity three dental motor car ambulances have been presented to the Government and another one is to be tendered in the immediate future.

4. SURGERY OF THE HEAD.

On June 15, 1917, the Surgeon General approved of the organization of the section of the surgery of the head, which had among other duties the securing of a personnel especially qualified to care for diseases and injuries of the brain, eye, ear, nose, and throat, face and jaws, and placed in charge a member of the Medical Corps, Regular Army. The commissioned personnel of the surgical head unit to consist of one specialist each for the brain, eye, ear, nose and throat, one plastic or oral surgeon, and one dental oral surgeon, competent to care for fractures, impactions, and pathologic diseases to which the teeth and jaws are subject.

It is believed by including dentists in the organization of the surgical head unit, better service will be given to our wounded soldiers who sustain injuries of the face and jaw than could possibly have resulted had these cases been handled without the assistance of those specially trained dental officers, and, in addition, a splendid opportunity is given to members of this profession to increase their ability and knowledge of surgical principles involved in the management of these surgical lesions.

5. EDUCATIONAL ACTIVITIES.

In May and June, 1917, a majority of the dental schools of this country instituted gratuitous courses of special instruction for applicants desiring to enroll in the Dental Reserve Corps. The course was approved by the Surgeon General, and was of such a nature as to fit those in attendance to be better officers for hospital and field service. The instruction embraced the relationship of the dental officers to the supply and administrative departments of the Army and military law. A number of the institutions have repeated these courses at various intervals, one of which had a total enrollment of 624. It is a conservative estimate to state that between four and five thousand dentists attended these courses of instruction without expense to themselves or to the Government, and the dental educational institutions of this country have a right to feel proud of this contribution.

On October 15, 1917, by authority of the Surgeon General and under the direction of the subsection of plastic and oral surgery of the surgical head unit, courses of instruction in plastic and oral surgery were instituted at Washington University Dental School, St. Louis, Mo., Northwestern University Dental School, Chicago, Ill., and Thomas W. Evans Museum and Dental Institute, School of Dentistry, University of Pennsylvania, where medical and dental officers were detailed for instruction. The medical officers were given special instruction in plastic surgery, blood transfusion, and bone transplantation, and the dental officers in bone fragment fixation by intro-oral splints, the systemic effects of focal infections, and surgical anatomy of the face, jaws, and neck. These courses were discontinued in March, 1918.

On March 15, 1918, a school for Army dental officers was instituted at Camp Greenleaf, Chickamauga Park, Fort Oglethorpe, Ga., in connection with the medical officers' training camp, for the military and professional instruction of dental officers and their authorized dental assistants.

The duration of the general course of instruction for the dental officers is two months. The first month is given over to 180 hours of general military training and the second to 70 hours of special military training, and 110 hours devoted to professional subjects that have a definite relation to general dental practice as it should be conducted in the Army. Each class consists of from 80 to 100, and a small percentage of each is retained for training to qualify them for assignment as division dental surgeons or assistants to the division dental surgeon. In the immediate future a few will be retained from each class for special instruction in Röntgenology, as we have need for two dental Röntgenologists for each cantonment in this country, as authorization has recently been received for the installation of complete radiographic equipment in the dental unit building in each camp.

In this officers' training camp we have dentists receiving military training that is of such a nature as will greatly increase their physical and professional efficiency. Furthermore, in so far as we know, this is the only country giving such extensive special training in military and professional subjects to dental officers and their authorized assistants.

XVIII. Division of Veterinary Corps.

The history of the Veterinary Corps dates from the approval of the national defense act, June 3, 1916. Section 16 of this act authorized veterinarians and assistant veterinarians. Assistant veterinarians were given the rank, pay, and allowances of second lieutenants for the first 5 years of service, and of first lieutenants from 5 to 15 years. They then become veterinarians with rank, pay, and allowances of captains until 20 years of service when they become majors. They were to be assigned to duty with mounted organizations as inspectors of horses and mules and as inspectors of meats, and constituted the Veterinary Corps which was specified as a part of the Medical Department. Veterinarians then in the service were authorized to be transferred to the new Veterinary Corps on passing the required examinations or if found physically disqualified to be retired. Such number of reserve veterinarians as were needed to attend animals in the quartermaster corrals were authorized; the same to constitute a list of eligibles for commissioned grades.

This legislation marked the culmination of the efforts of leading members of the profession in this country, both in and out of the Army, to obtain adequate recognition through the establishment of a commissioned status for Army veterinarians which had extended over a period of 32 years. Indeed few civilian veterinarians realized the importance of this step and the indifference and inability to agree on united action was for a long time reflected in the apathy of Congress.

For many years the veterinary service of the Army was rendered by civilians employed by the Quartermaster Department under contract. In 1900 the veterinarians attached to regiments of cavalry and field artillery were given the rank and pay of second lieutenant, without privilege of promotion or retirement, and still leaving a considerable number of civilians on duty at quartermaster corrals and depots. The service was never organized, no enlisted men were provided, and the professional standard of the veterinarians in many cases was low with neither opportunity nor hope for improvement.

Following the passage of the act of June, 1916, the Surgeon General inaugurated the work of establishing the corps. An examination board of three medical officers and two veterinarians was appointed. Owing to the necessity of securing interpretations of the law and the many scattered places of duty of veterinarians in Mexico and along the border, in China and in the Philippines, the work of conducting the examination was unavoidably delayed. Many of the veterinarians then in the service were lacking in the educational, professional and moral qualifications essential to a commissioned officer. A careful sifting of men necessarily followed.

On April 11, 1917, a total of 62 veterinarians had been found qualified and commissioned, further increased by July 1 of the same year, to 91.

The Veterinary Corps of the Regular Army, increased in proportion to the enlarged Army, numbers on the active list, at this writing, 118 officers.

1. DEVELOPMENT AT THE OUTBREAK OF THE WAR.

On April 14, 1917, the 62 officers of the Veterinary Corps of the Regular Army comprised the entire veterinary service. The entrance of this country into the war demanded an enormous increase in the Veterinary Corps as in every other branch of the service. Examinations were promptly held to fill the vacancies up to the authorized strength of 118. It was also necessary in the emergency to examine and commission reserve officers and call them to active duty to care for the large number of public animals about to be purchased and distributed to the auxiliary remount depots under construction at the cantonments throughout the country.

The plan adopted was to call on the deans of the recognized schools to give the professional examinations to desirable men between 20 and 55 years of age, after which the successful candidates were physically examined by a medical officer, and on qualifying were commissioned as second lieutenants, Veterinary Reserve Corps. It resulted in a large number of new officers in an emergency, and was undoubtedly the best plan available.

A committee appointed by the president of the American Veterinary Corps Association came to Washington and conferred with the Surgeon General on March 22, with regard to the expansion of the corps necessitated by the war, later with the medical advisory board of this office. In anticipation of the necessity for legislation to establish the Veterinary Corps of the National Army, much preliminary discussion and planning ensued to prepare for such legislation. A tentative organization was drawn up by these committees based on the British system. In July, 1917, after securing the Surgeon General's approval to the proposed organization, the committee called on the Secretary of War and was then informed that no special legislation was required, and that the Overman Act of May 18, 1917, give the President authority for expanding the Veterinary Corps organization during the present emergency.

A memorandum was prepared recommending that veterinary officers of the National Army be given rank up to colonel and that an enlisted personnel be provided. This recommendation, which was concurred in by the Surgeon General, was practically identical with the provisions of General Order No. 130, published later, except that it called for 3 colonels and 9 lieutenant colonels. It was presented to the Surgeon General about August 1, and the General Order was issued in October.

Veterinary officers.—The supply of officers had been very early the most urgent problem for the new corps. On September 30, 1917, it was apparent that more men had been examined than could be absorbed for several months, and all examinations were suspended, unfinished examination papers completed, and no further men from civil life have since been examined, except in two or three special cases where it appeared that an injustice would be done the applicant by refusing such examination. Seven hundred and ninety-seven officers on active duty and a waiting list of about 500 resulted from the examinations, and this list has been drawn on as required. It numbers 245 at present.

Besides civil life, officers have been drawn from two other sources, the National Guard and graduate veterinarians in the ranks. Under the provisions of the act of June 3, 1916, veterinarians of the National Guard in Federal service were automatically transferred into the National Army, and the Bureau of Militia Affairs reported 81 such on October 1, 1917. On checking up the papers of these men it was found that but 71 had ever been inducted into the Federal service. Three had been discharged for physical disability and four have resigned, leaving a total of 64 on active duty in various grades.

Graduate veterinarians who have enlisted and desire to take the examination for a commission are sent when practicable to one of the training camps and examined by a veterinary board while under observation. Otherwise the examinations are held at the camps.

As a rule all appointments are in the grade of second lieutenant, but appointments to the higher grades, including that of major, when the corps was in the formative stage, were necessarily given to men of unusual qualifications. Officers are promoted on their records, and on the recommendation of their superiors. So far as practicable, favorable recommendation of a general veterinary inspector is necessary in every case. During the week beginning December 10, 1917, written examinations were held simultaneously, for all veterinarians recommended for promotion, and several hundred were enlisted and promoted as rapidly as possible.

Enlisted men are obtained from voluntary enlistment, special induction ahead of their turn of men within the draft age, assignment from increments of the draft, and transfer from other organizations. By special arrangements, the inducted and some of the drafted men have been selected from certain vocations as veterinary students, agricultural students, teamsters and farmers, resulting in men of very acceptable quality and having had the advantage of familiarity with animals. The quality of men for over-seas units has been particularly good. The Veterinary Corps has been called on with other branches to make use of men physically unfit for over-seas duty, and practically all such have been placed in the auxiliary remount depots. The Veterinary Corps has also had its share of alien enemies and conscientious objectors. These things do not make for efficiency, and many complaints have been received at the quality of service rendered by men of this type, who are frequently in hospital or guard house, are absent without leave, or otherwise worthless. All enlisted men of the Veterinary Corps have been white, except about 900 constituting the personnel of Veterinary Hospitals Nos. 3, 4, and 5.

The Medical Enlisted Reserve Corps has been utilized as regards the Veterinary Corps primarily to permit veterinary students in the draft age to complete their educations. Some 260 verterinarians who graduated prior to 1918 have also been allowed to enlist in the corps. Of the latter class, 160 have been ordered to active duty July 1, at the medical officers' training camp, Camp Greenleaf, Ga., where they will be given a short training and allowed to take the examination for commission. Of the remaining 100, approximately 25 are retained in civil life at the request of the Bureau of Animal Industry and various state schools. The remaining, most of whom are married will be called as soon as the list of unmarried is exhausted.

All other members of the Enlisted Reserve Corps, i. e., graduates of the year 1918, will be ordered to duty and given two months' military training at the medical officers' training camp, Camp Greenleaf, after which all will have the opportunity to take the examination for commission as second lieutenants, Veterinary Reserve Corps. Successful applicants will be assigned to active duty as required. Those who fail will necessarily continue as enlisted men.

2. THE VETERINARY CORPS AND THE MEDICAL DEPARTMENT.

The Veterinary Corps by statute is a part of the Medical Department, and its officers and men are consequently subject to the rules and regulations governing that department. The direction of the Veterinary Corps is a function of the Surgeon General's Office, and for administrative purposes the veterinary service of the military departments is regarded as under the supervision of the department surgeon. In the entire veterinary field organization, however, there is no provision for further medical supervision. The division veterinarian is not an assistant to the division surgeon but is coequally with him a member of the commanding general's staff. Veterinarians of other units, depots, posts, etc., are likewise regarded as independent of the medical officer. At the same time they belong to the same department, and their work in sanitation and preventive medicine runs closely parallel.

This point of view has been the result of the office interpretation of Special Regulations No. 70 in its practical application and has been published in Circular Letter No. 16. This, which seems an anomalous situation, has aroused little criticism and the veterinary service appears to have fitted into its place without unnecessary friction.

3. WEEKLY TELEGRAPHIC REPORTS.

In December, 1917, was established a weekly telegraphic report from each division, auxiliary remount depot, remount depot, and embarkation depot. It covers the period ending at noon Friday and furnishes the following data: number of animals in the command, number noneffective from all causes, number of cases of communicable disease on the day of the report, and number of deaths during the week. From these figures approximate rates for noneffectives, communicable diseases, and deaths are figured for each command and for the service as a whole. The results are charted and show in a graphic way the progressive improvement in noneffective and death rates.

These reports were contemplated to show conditions amongst the green animals in the field only and do not include the more mature animals of posts or cavalry commands. They are defective in that the figures are based on the animals on hand on an arbitrary date and do not take into consideration the fluctuations of animal population during the week at individual places. They do not show admission rates. They also show relatively higher rates at the auxiliary remount depots because most of the sick of a camp are collected at the depot. They constitute, however, the only general morbidity and mortality statistics of the public animals collected thus far.

The constantly noneffective rate per thousand for all causes was 62.58; for communicable diseases was 26.84. The total deaths, including animals destroyed for glanders, was 9,001, an annual death rate per 1,000 of 68.18.

In Table 181 appears a list of the auxiliary remount depots showing the relative rates during the period. Figures for the divisions are neither shown nor of value for the reason that the serious cases are sent to the hospitals at auxiliary remount depots.

4. HOSPITAL CONSTRUCTION.

The hospital provisions at the auxiliary remount depots, as originally planned and constructed by the Quartermaster Corps, were and are crude and inadequate, and so far as known were devised without assistance or suggestion from the veterinary profession which is expected to use them in the treatment of sick and injured animals.

They consist of so-called hospital stables to which is added a small building for operating and dressing room, which possesses the added advantage of a concrete floor and a sink. No effort has been made by this office to improve these hospitals. It is considered better to start at the beginning and construct new hospitals outside the auxiliary remount depots than to attempt to add to what is now an admitted failure.

When this office protested over the further construction of veterinary hospitals without the plans first receiving the approval of the Surgeon General, the construction division of the office of the Quartermaster General suggested their construction from funds pertaining to the appropriation construction and repair of hospitals. Three such hospitals were authorized in the urgent deficiency appropriation bill for 1918—one of 1,000 animals capacity for the animal embarkation depot, Charlestown, S. C., one of 500 capacity as a base veterinary hospital at Camp Lee, and a smaller one at Camp Humphreys, Va. The plans originally prepared by Maj. Vans Agnew, in consultation with Col. Aitken and based on a British type, have been extensively revised and detailed drawings added. As now prepared they include, besides the hospital buildings, for sheltering sick animals, quarters, barracks, mess for officers and men, and also administration building, guardhouse, storehouse, etc., and require an expenditure of $475,000, which is excessive.

This hospital is designed to be an independent, self-sustaining unit and consequently must be quite complete.

Plans for an approved dipping vat have also been perfected and sent to several auxiliary remount depots for installation. One of these vats is included with each new hospital unit.

5. SANITATION.

An active campaign to improve the sanitary conditions surrounding public animals has been conducted by the Veterinary Corps since its establishment. This begins with the sanitation of the railroad and private stockyards where animals may be assembled for purchase and shipment, is continued during their transportation and their care at the auxiliary remount depots and in camp organizations. It is the duty of the Veterinary Corps to advise with regard to all conditions which may bear on the health or efficiency of animals.

Should the amendments of Special Regulations No. 70, recently admitted, be approved, a regular monthly sanitary report will be received from every command having animals. In the absence of this the office has kept informed and based its recommendations on the reports of the general veterinary inspectors, the stockyard inspectors, and to a less extent the reports of inspectors general and remount inspectors.

A multitude of minor defects have been corrected by the veterinary inspectors on the ground. The more serious difficulties are referred to this division. During the winter and spring a great deal of shipping fever incident to the assembling and transporting of many green animals developed. In the more exposed auxiliary remount depots influenza and pneumonia were common causes of death. The worst defects, in the opinion of this office, are the mud and accumulated manure and the lack of dry standings.

The mud conditions improved as the weather did, but it is felt that they will be repeated during the coming winter unless active corrective measures are adopted. The English and French have come to the conclusion that dry standings are of vital importance in keeping the animals well and it is felt we can not afford to disregard their experience.

Recommendations from this office in the direction of dry standings with or without shelter have been repeatedly made on inspectors' reports. They have met with more or less antagonism from the remount division, office of the Quartermaster General, seemingly based on the argument of the great cost involved. It may not be possible to overcome this objection, but this division is firm in the opinion that the serious conditions due to deep mud in the above-named depots are a disgrace to modern ideas of sanitation and are correctible with a reasonable expenditure. It will be both inhuman and extravagant in animal suffering and life to permit a repetition of the conditions due to mud in the past season.

6. COMMUNICABLE DISEASES.

In handling public animals it has not been possible to enforce well-known principles of animal hygiene. For this reason the morbidity and mortality rates have been high. The process of purchasing and shipping animals was very active during the entire winter and spring. Shipments were not infrequently on the road for from one to two weeks. The Federal law which requires that all animals be unloaded for feed, rest, and water once in 28 hours was not enforced. Shipments were often not unloaded from 40 to 60 hours, and even then they were placed in stock pens where accommodations were limited. A large proportion of the stock cars and stockyards were infected with influenza, strangles, etc. It was apparently impossible to clean them between the departure of one shipment and the arrival of another. Some animals were sick at the time they were loaded for shipment. Others became sick during transit, and many arrived dead or incurably sick. At destination conditions were even as bad, and sometimes worse than those to which animals were subjected in transit. The majority of the remount depots were overcrowded and were decidedly unsanitary. Many of them were located on low land with a clay subsoil and the corrals became seas of mud. As the season progressed they became worse, for the reason that the accumulation of manure and refuse from the food was added to the constantly increasing amount of mud. Estimates were made in the auxiliary remount depots for one man to care for about 15 animals. While this number may be adequate for the direct attendance on the animals it has fallen far short of covering the other miscellaneous duties amongst which the cleaning of corrals is of first importance. The force of men and the means of transportation have been inadequate practically everywhere. While 75 enlisted Veterinary Corps men were allowed to each depot, many months elapsed before the quota could be filled. The type of men for both Quartermaster Corps and Veterinary Corps has often been unsatisfactory, physical and mental defectives, foreigners, and conscientious objectors predominating. Consequently it has not been possible to keep corrals free from manure and mud or to drain them. In addition to the unsanitary standings, very few corrals were equipped with shelter in which animals could be protected against snow, rain, and wind. The principal transmissible diseases encountered have been influenza, strangles, glanders, and foot infections. Skin troubles have been rare.

Influenza, or shipping fever, was very prevalent. Nearly every animal purchased had the disease in a more or less virulent form and frequently associated with it were the usual complications like pneumonia, pleurisy, laminitis, and gastrointestinal catarrh.

Strangles has been much less prevalent. The losses from it were low except in cases in which it complicated influenza or some other diseases.

Glanders.—Among the communicable diseases of animals in an army, glanders has always been considered one of greatest importance. Since the discovery of the organism that causes it (bacillus malleus), how it is transmitted, and modern methods of diagnosis, the possibility of its control has been greatly increased.

The losses from glanders since the present war was declared have amounted to practically five-tenths of 1 per cent. The total number of horses and mules destroyed up to June 30 was 1,455. All animals have been promptly destroyed as soon as a positive diagnosis of glanders could be established.

The original source of infection was not determined in all cases. It is known that glanders existed among public animals, especially those used on the Mexican border, before war was declared against Germany. Since that time those animals and all those newly purchased have been tested for glanders before they were placed in auxiliary remount depots or in divisional organizations. Practically all public animals have been retested for glanders several times during the past year.

In the beginning of hostilities it was decided to use a combination of the ophthalmic and serological test, the last test to be used only in doubtful cases. The ophthalmic test, which has been in general use for some years by the Department of Agriculture, is applied to all animals at the time of purchase, and only those are accepted that pass this test satisfactorily. A retest is made upon their arrival at an auxiliary remount depot. Any that fail are promptly destroyed. A sample of blood is obtained from those about which there is any doubt. Those that react to the blood test are also promptly destroyed and a retest of all animals that have been in contact with the glandered animal is applied each 21 days until two ophthalmic tests are made with no positive reactions.

All animals are given this test when they are issued to divisional organizations and again when they return to the auxiliary remount depot or a veterinary hospital. When glanders appears in a divisional organization the same system of testing is adopted as that in vogue at an auxiliary remount depot. All animals that are to be shipped overseas are given this test at the port of embarkation.

The eradication and control of glanders has received solicitous and unremitting attention in this office. The military inexperience of veterinarians in the service has been a most apparent handicap, but further than this, the great majority have been unfamiliar with glanders clinically, with the application and reading of tests for its detection, and with the sanitary measures to be adopted in its control.

Correct reading of the ophthalmic test demands experience and judgment on the part of the reader and a reasonably normal conjunctiva. Animals running in corrals and those taking railroad journeys are prone to sore eyes. Consequently misinterpretations of the test are not difficult and are probably not uncommon. For these reasons and because an intradermic test is in use overseas, the development of an intradermic technique has been started.

7. SUPPLIES.

All veterinary supplies are purchased and issued by the supply division of the Surgeon General's Office. Maj. D. S. White, Veterinary Corps, National Army, became associated with this work on October 29, 1917, and has since been closely identified with it.

The supplies on hand, when the Veterinary Corps passed under control of the Medical Department, were those transferred from the Quartermaster Corps. They were valued at $200,000 and were largely of a type little useful in the present emergency. In fact, a canvass of the veterinary supply and equipment situation revealed the absolute necessity for a complete new list of articles, both expendable and nonexpendable.

To correct this defect the supply division on September 29, 1917, issued "Tentative Veterinary Tables," constituting Article XXII, paragraphs 966 and 977 of the Manual Medical Department. These were not adequate. The items listed were of the wrong type, bulky, heavy, often put up in fragile containers, and in no sense adaptable to modern war conditions. New supply and equipment tables were therefore compiled which were formally approved by the General Staff January 22, 1918. They include tables of medicines, disinfectants, and antiseptics, list of instruments, stationery, and miscellaneous supplies, contents of veterinary chests and wallets, equipment of the veterinary field unit, the divisional mobile veterinary section, and of the veterinary hospital units. There are now being printed and will appear as amendments to the Manual Medical Department, paragraphs 902, 966, 967, and 978 to 992, respectively, taking the place of Tentative Veterinary Tables. Mimeograph copies of them have been distributed throughout the services of the interior for the information and guidance of those concerned; copies have been sent to France.

About November 15, 1917, realizing the necessity for a radical change in veterinary supplies for field and hospital use, the British War Office was requested to loan the Surgeon General of the Army a complete set of veterinary field chests and wallets for inspection, and to serve as models to be patterned after if deemed suitable. They were received and after careful examination were finally adopted as models for our Army.

The two fundamental reasons why the British equipment was selected were:

(*a*) The plan of organization of the Veterinary Corps is modeled closely after British Army Veterinary Corps. Under it sick and inefficient animals are treated, except for first aid and in emergencies only, in line of communication veterinary hospitals. The supply system fits in with this plan.

(*b*) The British Veterinary Corps had spent many years evolving a suitable supply system, keeping constantly in view economy in weight and bulk and simplicity in distribution. During the three or more years on the western front in the most strenuous warfare the world has ever known, ample opportunity was afforded to test in a most practical way the efficiency of this equipment.

8. ORGANIZATION OF THE VETERINARY SERVICE.

General inspectors.—The territory of the United States was divided into five zones and five experienced officers assigned thereto as general veterinary inspectors about December 15, 1918.

War Department orders direct that these officers shall act as general veterinary inspectors in their territory, cooperating with the Bureau of Animal Industry therein, in the disinfection and sanitation of public stables, yards, and stock cars used in the collection and transportation of horses and mules intended for or in the military service, inspecting and reporting upon the sanitary condition of yards, depots, veterinary hospitals, horse lines, stables, etc., belonging to or used by the War Department and not under the control of the department commanders; the methods used in handling animals therein, the efficiency of veterinary officers and upon such other subjects as have a direct bearing on the improvement of the veterinary service or on the prevention of disease and inefficiency among public animals. They are authorized to make recommendations to local commanding officers of the remount division, Office of Quartermaster General, for the correction of conditions prejudicial to the health and efficiency of public animals and are directed to render their reports direct to the Surgeon General of the Army.

By virtue of the broad powers of these orders they act as both inspectors and instructors and are encouraged to remain at a station not only long enough to inspect it but also to correct defects so far as possible and to improve the efficiency of veterinary personnel by instruction and advice. Wherever a serious outbreak of communicable diseases, like glanders, has occurred, the inspector is instructed to assume veterinary charge of the situation until the epidemic has been brought under control.

In general the activities of these inspectors have been of the utmost importance in advancing the efficiency of the veterinary service. Their work in connection with the inspection of stockyards can not fail to have its beneficial effect on the live-stock industry of the entire country.

Veterinary officers, as stockyard inspectors to the number of 10, operating under orders from this office, were assigned to important shipping points for a time but have been gradually replaced by lay inspectors of the Bureau of Animal Industry who report entirely to the senior purchasing officers of the zones.

Relatively high mortality in several shipments of animals resulted in very thorough investigation by this office. Two hundred and seventy-seven animals died in a shipment from Camp Grant to Newport News, mostly at Covington, Ky. Five died at Newport News, 26 at Camp Meade, and 11 at Fort Ethan Allen, all in shipments from Camp Upton. Suspicions of poisoning were aroused and given considerable publicity in the press. It was impossible to definitely fix the cause of death since the lesions as a rule were those of a simple gastrointestinal catarrh, but the conclusion was forced that exposure to long periods without rest, food, or water while under the strain of a railroad journey was the leading if not the only causative factor. The so-called 28-hour law had gone by default because the War Department had ruled in 1916 that in emergency it was nonapplicatory to shipments of public animals, and officers accompanying were authorized to sign releases which in active practice meant extending the time in every shipment without unloading almost indefinitely. In the Fort Etahn Allen shipment, 20 mules traveled 62 hours without food, rest, or water, and 11 died. This state of affairs resulted in a War Department ruling concurring with recommendation of this office that the 28-hour law should be hereafter enforced except in extraordinary emergency.

Ports of embarkation.—A veterinary service is authorized at ports of embarkation and has been organized at Newport News, Va. The senior veterinary officer is designated as the post veterinarian and has supervision of the veterinary service of the port and of animal transports. A veterinarian is assigned to each animal transport, permanently, so far as practicable.

Divisions.—The veterinary personnel of an Infantry division at full strength consists of 12 officers and 51 men.

Service of camps.—As rapidly as the divisions have been moved from indivisional cantonments, a camp veterinary service has been organized by the assignment of a camp veterinarian, a meat and dairy inspector, who is assistant to the camp veterinarian, and five enlisted men, two of whom are experienced in meat-inspection work. When the number of animals requires, an additional veterinary officer and three additional enlisted men are provided. The camp veterinarian is on the staff of the camp commander and is his adviser in all veterinary matters. The duties of the camp veterinarian as regards units and other organizations in the camp are similar to the relations existing between the division veterinarians and the units of the division. He is likewise responsible for an efficient meat and dairy inspection. The camp veterinarians have been selected men contemplated to be in training for the position of division veterinarian in these camps when divisions are to be formed later.

Military posts.—A veterinary service is maintained at only a few military posts. As a rule this assignment consists of one officer and three men since the demands on such service are limited. The animals kept at posts are as a rule old and seasoned and few places have capacity for any large number. This does not refer to large reservations on which detached cavalry regiments are stationed, for in such cases the veterinary service is assigned to the organization rather than to the place. When an experienced officer is available as post veterinarian, however, and other commands are present it is contemplated he shall act in a capacity similar to that of the camp veterinarian and coordinate the veterinary service.

Veterinary service in the theater of operations.—Besides the field unit attached to mobile commands and the divisional mobile veterinary section, both already described, the following veterinary hospital organizations are provided:

(*a*) The Corps Mobile Veterinary Hospital.
(*b*) The Army Mobile Veterinary Hospital.
(*c*) The Base Veterinary Hospital.
(*d*) The Veterinary Hospital (L. of C.).

(*a*) The Corps Mobile Veterinary Hospital (T. of O. No. 109) is provided at the rate of one to each corps. Personnel, 2 officers and 35 enlisted.

The equipment is similar to that of the mobile section since their duties are similar, both being evacuating units. The mobile hospital does not have the pack mule of the divisional unit but has a 2-mule ambulance.

(*b*) Army Mobile Veterinary Hospital (T. of O. No. 330). One supplied for each field army. Personnel, 4 officers and 144 enlisted.

While much less mobile than the corps unit, this hospital may serve as an evacuating unit or as a stationary hospital, depending on circumstances. Its hospital equipment is practically one-half that of a veterinary hospital and it is designed for 500 patients.

(*c*) Base Veterinary Hospital. The personnel and equipment are identical with those of the Army Mobile Veterinary Hospital.

(*d*) The Veterinary Hospital (T. of O. No. 33[illegible]) is supplied at the rate of 5 to each corps. Personnel, 8 officers and 311 enlisted. One captain or first lieutenant, 1 sergeant, first class, 1 sergeant, and 9 privates, first class, or privates are sanitary troops.

This is the typical fixed hospital of the line of communications with a standard capacity of 1,000 patients. They are generally operated in groups and designated as the receiving hospitals, mange or contagious diseases hospitals, and general hospital of each group.

9. TRAINING CAMPS.

It became evident very early in the history of the Veterinary Corps that its efficiency was seriously imperiled through lack of military experience on the part of veterinary officers. There was practically no leaven of trained men to help the untrained and it was too much to expect men fresh from civil life to readily adapt themselves to service conditions. The problem of organizing and training field units for overseas was also urgent with scarcely a competent instructor available.

(*a*) *Camp Greenleaf.*—The veterinary section of the medical officers' training camp, Camp Greenleaf, opened in February, 1918, with a class of 50 officers. The first class graduated April 20th, the next of men on June 20, and arrangements are now complete for a graduating class of 100 each month, each class to have two months' training. The first month has 180.5 hours of instruction devoted to purely military subjects. The medical officers of the training cadre of the camp are utilized as instructors in most of the military work to the advantage of the Veterinary Corps. The second month continues the military but includes 64 hours of general veterinary training. The veterinary officers are organized as separate companies, and their work and progress have been reported as excellent. Every effort is made to send all men from civil life to the camp for their first active duty. The enlisted veterinary detachment is made up of 40 men semi-permanently on duty, members of the Medical Enlisted Reserve Corps who are graduates preparing for examinations for commission, and a few men inducted into the service and coming from points east of the Mississippi.

(*b*) *Medical officers' training camp, Fort Riley, Kans.*—The veterinary section of the medical officers' training camp at Fort Riley, Kans., was established on February 4, 1918. It is used entirely for the training of enlisted men, chiefly those inducted into the service from the States west of the Mississippi. Besides training in the military and special duties of the veterinary soldier, classes are maintained at the schools for cooks and bakers and horseshoers, and men given these courses are assigned to overseas units as fast as ready.

(*c*) *Veterinary training school, Camp Lee, Va.*—It also became apparent quite early that the facilities at Camp Greenleaf would prove inadequate for the training of the officers and men and for the organization of overseas units, and the establishment of a purely veterinary training school was recommended in January of this year. This school was authorized on March 22, 1918. It consisted of barrack accommodations for 1,600 men and quarters for 95 officers, with an administration building, lecture hall, and infirmary.

The site selected was a desirable one in the midst of Camp Lee. The construction was started promptly, and the commandant, Lieut Col. E. A. Sturges, National Army, and the senior veterinary instructors were early on the ground. Much delay was experienced in securing men from the draft and it was early in June before any considerable number was on hand.

10. LABORATORY SERVICE.

A veterinary laboratory was established by War Department orders on January 19, 1918, at Philadelphia, Pa., Maj. S. H. Gilliland, Veterinary Corps, in charge. Laboratory rooms are loaned by the University of Pennsylvania and equipment and supplies furnished by the Medical Department. The purpose of the laboratory is to study the cause, prevention, and treatment of influenza, strangles, and pneumonia amongst public animals; to examine and determine the therapeutic value of sera and other remedial agents; to prepare mallein and other laboratory products; and to make general bacteriological and pathological examinations. This laboratory has manufactured a large amount of mallein and turned it over to the Bureau of Animal Industry. The bureau is at present supplying all mallein used by the Army. The volume of complement fixation tests for glanders became greater than could be handled by this laboratory with the assistance of the laboratory of the Bureau of Animal Industry, and arrangements were made to place a veterinary officer trained in laboratory work in the department laboratories at the Letterman General Hospital, San Francisco, Cal., Fort Sam Houston, Tex., Atlanta, Ga., and Fort Leavenworth, Kans. These officers were all instructed at the Philadelphia laboratory in uniform technique. Veterinarians in the field are authorized to call on the base-hospital laboratories for simple laboratory examinations, but all more extensive work, including blood tests and pathological work, is required to be done at one of the aforementioned department laboratories. The results from this arrangement have been most satisfactory.

11. MEAT AND DAIRY INSPECTION SERVICE.

The responsibility of the Veterinary Corps in the matter of meat inspection was recognized in the national defense act. Special Regulations No. 70 directs that the Veterinary Corps provide for the inspection of meat-producing animals before and after slaughter and of dressed carcasses, and for the inspection of dairy herds supplying milk to the Army, provides for a meat inspector attached to headquarters of each division, and outlines his duties.

The history of meat inspection for the military forces of the United States, so far as its relation to the veterinary profession is concerned, began at a much earlier date with the appointment on July 8, 1901, of Dr. Charles W. Johnson, meat inspector, subsistence department at large, United States Army, by transfer from the Bureau of Animal industry.

This appointment was predicted in Circular No. 3, Office of the Commissary General, issued June 7, 1901. This circular provided that meat purchased by the subsistence department would be subject to "inspection in addition to that exacted by the Secretary of Agriculture." This inspection contemplated a supervision of the selecting, curing, smoking, canning, and packing of all meat food products purchased for the military forces.

Taken in the larger sense, the Army meat inspection was a direct outgrowth of the embalmed-beef controversy which followed the close of the Spanish-American War. Inquiry into the charges that certain articles of food furnished the military forces at that time were unfit for issue, brought out repeatedly questions concerning the methods used in the preparation of meat food products—the quality of the beef purchased and method which entered into the manufacture of meat food products and whether there was a representative of the Army present during its preparation.

Following this inquiry, inspectors from the board of trade were employed for inspection duty by the subsistence department. These inspectors were paid upon a basis of the number of boxes or barrels inspected, and meat was purchased very largely under the general rules governing board of trade products. That this method of inspection was not satisfactory is evidenced by some of the complaints concerning the work. The inspectors were disinterested, doing Army work only incidentally, and were not always available when needed.

In 1914 the comissariat of the Panama Canal Zone requested that the inspection of Army meats be extended to include the inspection of meat for the Panama Railroad Co. at the request of the general purchasing officer of the Panama Canal Zone. With the increase of the military forces in 1916, the inspection of the Army was increased by the employment of veterinarians by the depot quartermaster. These men were later taken into the Veterinary Reserve Corps and the work of meat inspection extended to the camps. A school for veterinary officers was established at Chicago depot for the purpose of giving instruction in meat inspection, and in 1917 a similar school for enlisted men was established at that place. New delivery points were opened from time to time as the purchase of meat supplies increased until there are at this time 26, with inspectors stationed at 23 cities, completing the inspection of approximately 10,000,000 pounds per week. There are on duty at the Chicago office 46 officers and 34 enlisted men, with 13 officers under instruction.

The inspection of all meats and meat products purchased for the Army through the Chicago depot has been efficiently conducted by the Veterinary Corps. The meat and dairy service in the camps has been less satisfactory. This camp service included inspection at the local commissary on receipt, while in storage and at issue, inspection of local slaughtering places and their methods of handling, storing, processing, etc., and inspection of milk herds and dairies, and is of great importance.

TABLE No. 181.—*Annual rates per 1,000 horses and mules.*

Camps.	Constantly non-effective, all causes.	Communicable diseases.	Deaths.
1. Lee	287.51	189.89	248.07
2. Sevier	194.08	93.87	212.49
3. Grant	189.52	50.02	153.12
4. Sherman	188.69	123.85	217.76
5. A. E. D., Newport News	155.44	26.45	75.73
6. Sheridan	139.52	68.85	133.85
7. Lewis	135.65	35.79	158.87
8. Shelby	132.88	53.44	123.25
9. Fremont	132.33	95.09	116.14
10. Greene	130.52	92.63	167.45
11. Hancock	123.56	70.09	71.03
12. Beauregard	122.80	50.73	96.13
13. Dix	119.32	79.54	319.93
14. Devens	103.25	61.40	103.25
15. El Reno	94.39	52.68	63.79
16. Logan	92.58	54.70	76.67
17. Upton	90.35	47.78	162.94
18. Bowie	88.25	70.33	58.53
19. McClellan	83.51	28.93	77.17
20. Gordon	75.46	22.65	47.39
21. Dodge	73.56	14.17	42.59
22. Taylor	71.28	38.91	101.60
23. Funston	68.87	44.29	83.21
24. Custer	64.55	31.62	51.58
25. Doniphan	60.23	6.34	56.07
26. Pike	60.14	19.58	63.23
27. Jackson	59.55	22.65	48.77
28. Johnston	58.84	8.47	20.91
29. Wadsworth	55.22	23.23	90.35
30. Cody	54.32	16.81	54.96
31. Travis	54.01	15.76	62.45
32. Meade	53.99	25.46	114.13
33. Wheeler	51.08	14.45	159.67
34. Front Royal	51.04	18.74	17.93
35. MacArthur	37.15	18.29	52.02
36. Kearney	27.92	17.49	106.11
37. Keogh	22.80	4.72	54.28

XIX. DIVISION OF ARMY NURSE CORPS.

During the past year the Army Nurse Corps has increased enormously. The day war was declared there were but 403 nurses in the service—233 Army and 170 reserve. On June 30, 1918, there were, exclusive of those on final leave awaiting discharge, 2,000 members of the Regular Corps, and 10,186 reserve nurses, making a total of 12,186. These nurses are stationed at 198 stations in this country and abroad. The number serving overseas is 5,350, including those already abroad and those awaiting transportation in New York. These stations include all the cantonment hospitals, general hospitals, base hospitals, aviation stations, and many Coast Artillery posts, as well as miscellaneous stations. Fifty nurses have been requested for duty at Las Casas, San Juan, P. R., and have been mobilized for that station, and a group of 8 anesthetists has been mobilized for over-seas service. Also in response to a cablegram from the commanding general, American Expeditionary Force, a group of 555 nurses was ordered to the mobilization station for service abroad. These nurses were selected from among those on duty in the cantonments, and were sent to the mobilization station in New York City in the course of a very short time.

The nurses of Base Hospitals Nos. 1 to 50, organized under the American Red Cross, were all assigned to temporary duty in the cantonments pending over-seas orders, and, with the exception of 5, have been ordered abroad or are awaiting transportation at the mobilization station in New York. The last 5 will be ordered to the mobilization station in the course of a very short time. Base hospitals after No. 50 will be organized by the Army, and the nurse personnel will be selected from nurses who have been on duty in the army hospitals in this country, thereby enabling this department to select those who have demonstrated their professional and physical fitness for the service. Special hospitals, No. 114 for orthopedic cases and No. 115 for head surgery, No. 116 for fracture, and No. 117 for psychiatric cases, have also been ordered abroad, though No. 115 is still at the mobilization station in New York awaiting transportation. Five thousand three hundred and fifty nurses serving abroad are distributed as follows:

British forces	755
French forces	14
American forces	3, 323
Awaiting transportation or en route, mobilization station	1, 258
Total	5, 350

This number includes nurses sent to the American Red Cross Military Hospitals Nos. 1, 2, and 3 and the American Ambulance, which were organized by the American Red Cross, but brought under military control shortly after the United States entered the war.

During the past year an outdoor uniform has been adopted for members of the Army Nurse Corps. As it was impossible to obtain forest-green or olive drab woolen material, it was found necessary to select navy blue. This has been very satisfactory and has been reported to be the best-looking nurses' uniform in Europe. Recently members of the Army Nurse Corps have been authorized to wear the war-service chevron on the left sleeve under the same conditions as it is allowed for officers and enlisted men. The uniform adopted has been placed in the uniform regulation book and removed from the Manual for the Medical Department.

Shortly after the declaration of war a clothing allowance for nurses was requested, but was disapproved by the War Department, as all clothing allowances had at that time been discontinued. As, however, quite an expensive equipment was needed by the nurses going overseas, the Red Cross agreed to furnish it to all nurses going abroad at a cost of approximately $200 each. As it is considered advisable for Army nurses serving in the United States to wear the outdoor uniform at all times, all nurses will be required to purchase these garments as soon as the bill for the increase of pay goes into effect. Exceptional equipment will still be issued by the Red Cross to nurses ordered overseas.

There were some complaints during the months of November and December, 1917, of shortage of nurses in some of the cantonment hospitals, great numbers of acutely ill patients having been admitted suffering from contagious diseases, etc. The delay in sending a sufficient number of nurses was due in part to the fact that quarters for their accommodation were not available. They were sent, however, as rapidly as possible, so that in a short time the need was fully met. Steps were taken to build additional quarters, other buildings, tents, and so forth, being used in the meantime for the nurses. They were, however, very much crowded and conditions were not at all satisfactory during this period. Quite a large sick report resulted at some of the posts, Camps Lee and Shelby in particular. Infirmaries for the care of nurses on sick report have since been constructed at all the cantonments and at several of the general hospitals and have been quite satisfactory.

The mess allowance of nurses has been increased from 40 to 60 cents at places where there are sales commissaries and to 75 cents where there are none. The subsistence allowance of nurses on detached duty in this country has been increased from $1 to $1.25 per day and to $2 for those on detached duty in Europe.

During the year 11,299 application blanks and circulars of information have been sent out and 3,196 returned.

A bill for the reorganization of the corps was sent to Congress last autumn, which provided for an increase of the base pay of nurses from $50 to $65; for retirement at the expiration of 20 years' service; for the creation of positions of assistant superintendents, and for directors and assistant directors of nursing service abroad. This bill became a law on July 9, but unfortunately the base pay of the nurses was increased to $60 only, and the chief nurses' pay, through accident, decreased to $10 over their pay as nurse, instead of $30 per month as was authorized in 1910. This, it is hoped, will be corrected immediately. The clause providing for retirement after 20 years' service on three-fourths pay was eliminated entirely, but it is hoped the objection to this may be overcome and some provision made later for retirement. There has been considerable agitation among the nurses of the country for rank. At this time no action has been taken so far as is known, either by regulation or legislation.

Army nurses have been assigned to duty at the war emergency dispensary which was established to look after the physical welfare of the large number of clerks who have come to Washington for service in the various departments of the Government. These nurses number at the present time 32, and are assigned to duty at various rest rooms of the large office buildings, as well as to visiting work in connection with those who need attention at their homes.

With regard to a corps of women to augment the nursing service in case of need, it has been decided to organize a school of nursing with headquarters in Washington, a three-year course to be given at the various large Army hospitals in this country, with an affiliation of one year at the civil hospitals in those branches of nursing in which training can not be adequately given in the Army hospitals. This has necessitated considerable rearrangement in the assignment of chief nurses, many of the chief nurses, though excellent executives, not having had experience in training school management.

It has also been decided to assign small groups of colored nurses at some of the hospitals in this country as soon as satisfactory quarters for their accommodation can be provided. The same plan has been decided upon in connection with a group of Cuban nurses, who have offered their services to the War Department.

Early in the year a change of regulation placed the full responsibility of ward management upon the head nurse, which responsibility has hitherto been shared by the wardmaster.

Ellis Island, the place at which the nurses were formerly mobilized to await transportation, having been taken over as an Army hospital, a new mobilization station was selected, and established at the Knott chain of hotels, in New York City, with headquarters at the Holley Hotel. This new arrangement has been quite satisfactory though some complaints have been made in regard to conditions at two of the hotels used. Nurses will not be sent to these two after the present number has departed.

Sixty-five nurses attached to Base Hospital No. 8 of the Post Graduate Hospital, New York City, sailed for Europe in July, 1917, on the S. S. *Saratoga*, which was rammed in New York Harbor by the incoming S. S. *Panama*. This necessitated the immediate evacuation of the ship. The nurses were taken aboard all sorts of small craft in the bay and returned to Ellis Island the next day, many of them in a state bordering on shock. With but few exceptions and because of having to leave the ship with no time to collect their belongings, they lost practically everything they owned. The war council of the American Red Cross, however, immediately appropriated a sum to reequip the entire group and gave $30 in gold to each nurse, there being no law at that time for the Government to reimburse them for the losses they sustained. "The act to provide for the settlement of the claims of officers and enlisted men of the Army, for loss of private property destroyed in the military service of the United States" has since been amended by act of July 9, 1918, (H. R. 12281) and members of the Army Nurse Corps who lose private property in the military service, will have it replaced or its value recouped.

In view of the high cost of clothing and equipment, particularly overseas, it has been recommended that the Quartermaster Department carry the necessary uniform and equipment for sale to members of the Army Nurse Corps at cost. No decision has yet been received in regard to the matter.

By act of Congress approved October 6, 1917, provision was made for compensation of nurses disabled or injured in line of duty, and for insurance against permanent disability or death.

A supervising nurse for the nurses on duty in France having been requested by Gen. Pershing in October, 1917, Miss Bessie S. Bell, who had an excellent record for a number of years as chief nurse, Army Nurse Corps, was sent to assume the duties of that position. Miss Grace E. Leonard, chief nurse, Army Nurse Corps, was assigned to a similar position in England.

During the year 1,843 nurses have been appointed in the Army Nurse Corps, 25 orders revoked before oath, and 1,780 oaths taken. Nine thousand six hundred and thirty reserve nurses have been assigned to active duty, 167 orders revoked and 9,415 oaths taken. One hundred and forty-seven nurses were discharged from the Army Nurse Corps, and 4 deaths; 550 reserve nurses were relieved from active service, and 18 deaths.

Owing to the number of deaths, it is believed it would be very desirable if a plot at Arlington could be set aside for nurses who die in the service.

For the first time in the Army, graduate dietitians have been employed in the Army Hospitals of this country and abroad and have been most satisfactory. The work has come under the jurisdiction of the Army Nurse Corps office and 164 have been employed.

XX. Library of the Surgeon General's Office.

During the fiscal year 1917–18, 547 books and 5,890 pamphlets were presented to the library and 141 portraits of physicians were added to the collection. The library now contains 196,243 bound volumes, 34,316 unbound volumes, and 352,523 pamphlets, in all, a total of 583,082 books and pamphlets, with 5,390 portraits of physicians. This collection makes the library of the Surgeon General's Office second only to the library of the Paris Medical Faculty in size and number of volumes; in other words, it is now the second largest medical library in the world. Exclusive of transactions of societies the number of current medical periodicals now received in the library is 1,293. This is exclusive of 148 separate German periodicals which have not been received since 1915. The total collection of medical periodicals is the largest and most useful in existence. During the year, 2,500 volumes have been sent to the bindery, but the number of current periodicals which stand sadly in need of binding is still very large.

In the fall of 1916, the twenty-first and last volume of the second series of the Index Catalogue was printed, making a total of 37 volumes in the first and second series. The two series comprised entries of 346,176 author titles, under which 171,911 volumes and 317,795 pamphlets were listed; and 1,420,631 subject titles, including 304,962 books and pamphlets and 1,156,669 journal articles. The number of portraits of physicians catalogued in the first and second series was 5,249. During 1917–18, the first volume of the third series of the Index Catalogue has been in preparation, the work of redaction and printing having been to some extent impeded by the exigencies of war-time service in this office and elsewhere. This volume, containing the accumulated literature (authors and subjects) from "A" to "Armies" is now completely in type, and will be published in the autumn of 1918. In starting the third series of this publication, which is now regarded as indispensable to scientific physicians and medical libraries everywhere, it is worth while to cite a few of the opinions expressed as to its value by the medical profession. It is regarded as the only work of the kind which can be placed in comparison with the great medical bibliographies of Haller and Callisen, which it easily surpasses in scope and extent, covering, as it does, the major part of the medical literature of the world, from the earliest times. In respect of practical utility, it may be said that it contains practically every item of any real value to medical science. At the Billings memorial meeting held at the Johns Hopkins Hospital in May, 1913, Dr. (now Col.) William H. Welch expressed the opinion that the Index Catalogue is the most important contribution yet made to American medicine (as distinguished from laboratory and clinical contributions of Americans to medical science) in the nineteenth century. In a printed communication of 1914, Col. J. George Adami, Royal Army Medical Corps, has said of the Index Catalogue and Index Medicus: "It is difficult to realize of what service to science these two publications have been to medicine the world over; or what has been the influence also to medicine the world over, of the existence of the marvelously progressive library of the Surgeon General's Office, and its service in bibliographical research."

In paragraphs 132–133 of the Manual for the Medical Department of the United States Army (1916), the value of this library as a place for research and of its Index Catalogue as a tool is brought to the attention of medical officers. The true functions of this library, first as an adjunct to the administrative mechanism of our Army Medical Department, second as a national collection of medical books, were already stated as far back as 1878, in an address by Dr. Oliver Wendell Holmes, in which the following brief was filed for Dr. Billings's project of printing an index catalogue of medical literature: "When we have a noble library like that at Washington, and a librarian of exceptional qualifications like the gentleman who now holds that office, I believe that a liberal appropriation by Congress to carry out a conscientious work for the advancement of sound knowledge and the bettering of human conditions, like that which Dr. Billings has so well begun, would redound greatly to the honor of the nation. It ought to be willing to be at some charge to make its treasures useful to its citizens, and, for its own sake, especially to that class which has charge of health, public and private."

In the last year the Medical Corps of the Army has had charge of the health of a large part of our male population, with the prospect of even greater responsibilities and of the enrollment of most of the physicians of the country in this service as the war wears on. The liberal appropriations made by Congress for the library have been doubled for the coming fiscal year. This places the library in position to meet its obligations in connection with the large amount of foreign medical literature which has accumulated in Europe during the war and which could not be transported overseas while the war goes on. For some years past it has been impossible to bring a good deal of useful and valuable material in this library to the front, from sheer lack of space. This difficulty may now be obviated through the fact that the large room in the southwest wing of the Army Medical Museum, directly underneath the library hall, has been vacated by the Adjutant General. It is proposed that this room be utilized as a combined public reading room and repository for the collections of bound and current periodicals (south end) and of public documents (north end). This will give better administration, since the literature most called for by the visiting medical public, entering on the same floor, is usually periodical literature. The removal of the bound periodicals and public documents from the bookstacks in the present library hall (second floor) will afford space for a much-needed rearrangement and reclassification of the remaining books in these stacks, with abundant shelf room for new accessions for many years to come. In order to accomplish all this it will be necessary to lay a cement flooring in place of the worn-out plank floor in the large room on the first floor, to set up adequate iron bookstacks in this room (for insurance against fire), and, for economy of administration and messenger service, to excavate and construct an iron staircase leading directly from the upper to the lower library hall. It is urgently recommended that support be given to this project and that it be carried out as soon as practicable.

During the past year, the large and valuable collection of public documents has been completely overhauled, rearranged, and reclassified. The collections of portraits and autographs of medical celebrities are in process of mounting in special portfolios. The unique collection of fifteenth-century books (medical incunabula) now numbering 240 separate items, has been carefully segregated from all parts of the bookstacks, and is thus accessible to students of medical history. A catalogue of this collection by the librarian has just been printed (Annals of Medical History, N. Y., 1917–18, I, 301–315).

XXI. The Medical Museum.

During the past year the museum has taken on a new life, there being a deliberate endeavor on the part of the Surgeon General to make preparation for the study of the medical material of this war upon a modern, scientific basis, to provide facilities which only the National Government may provide, and to place them at the disposal of the scientific men of the present day to the end that medicine may be advanced by the study of large groups, where community service studies may be developed and men really and truly assist and guide each other toward the attaining of the truth.

To this end officers are on duty in the pathological laboratory supervising the collection and preparation of the pathological material. Maj. Shufeldt is arranging the collections and cataloguing them as they come in, with proper cross-references, to the case histories and post-mortem protocols of each individual specimen.

There is a deliberate endeavor upon the part of the officers in charge and those engaged in the pathological work to make the pathological findings immediately available to the clinician and at the same time to file the material away in such shape that it may be available for research work at a later date by large groups of men, where a large group may work together over exactly the same material so that their findings will be group findings, where individuals may be helped and the studies advanced by the work of the group as a whole, and where the finished work may be filed away for future study, so that the individual material itself may be available again should it be found necessary to make the studies over in the light of a later and better technique.

There has been established an instruction laboratory for the production of moving pictures, animated diagrammatic drawings, still photography, lantern slides, photostat copies, black and white and color drawings, etc., to the end that medicomilitary matters in this way may be properly illustrated.

An interesting series of these films are the "animated diagrams" showing operative procedure, battle procedures, etc. These films will be used in teaching in the various medical schools developed by the Surgeon General's office, and they will be available for the medical schools in teaching medicomilitary medicine when the war shall have passed, and also serve as historical data.

Among these films are two of special interest. One of these shows the pathway of the nerve impulses in nystagmus, and why it is that the one movement is slow and the other rapid. The diagram shows the impulses starting in the semicircular canal, then going up the eighth nerve to the reflex centers in the medulla oblongata, then out through the motor nerves to the muscles moving the eyeballs, thus producing the slow deviation of the eyes in nystagmus. Next follows the correction of the deviation through cortical control, the passage of the nerve impulse downward from the cerebral cortex to the nerves of the antagonistic muscles of the eyeballs producing the quick return of the eyes, thus completing the nystagmus cycle.

In the femoral hernia operation, the artist's hand first appears drawing in the torso of the woman; then the bony pelvis appears, then Poupart's ligament, then Gimbernat's ligament, and when these ligaments are in place, then the aorta subdivides, the internal and external iliacs drop into place and the femoral artery goes through under Poupart's ligament to its own place. Then immediately follows the vein, following each one of the arteries; then the obturator artery, both in its ordinary and its extraordinary position, appears. Then the intestines appear in peristalsis, and the loop of the ilium attaches itself and enters through the crural canal and the femoral hernia is formed. Then the transparency fades away, leaving on the screen the original hernia, with the intestine within it. Then the knife falls into place, makes the proper incision, the retractors come in and open the tissues up, and layer by layer the operation proceeds with the moving diagram ever changing and making a perfectly clear outline of every detail of the operative procedure.

It is proposed at the first opportunity to obtain a picture of the femoral hernia operation itself being performed, and then place the two in juxtaposition for the purpose of teaching the young medical men.

Films are being exhibited over a circuit comprising about 450 camps, cantonments, colleges, etc., more than 300,000 feet of film having been shown during the week of writing this report, and the demand is steadily increasing.

The laboratory has coordinated very largely with all of the other bureaus of the War Department, having done much work for the photographic division of the Signal Corps, the Ordnance Department, the Engineer Corps, Commission on Training Camp Activities, Gas Defense, Council of National Defense, Gas Mask Division, General Staff of the Army, Adjutant General's Office, Committee on Public Information, Liberty Loan Division, American Red Cross, and others.

First-class artistic work is also being done by men who have been thoroughly trained in this work in civil life before they entered the service. One of the rules of the anatomical art department of the instruction laboratory is that no man will be accepted as an artist in this group unless he has supported himself for at least four years in civil life by his art alone.

There are two high-class wax modelers connected with the museum, one of whom has been detailed abroad; the other is here, producing work of a high grade.

It is also intended, at a later date, to use high-class sculptors for the work of facial reconstruction of men who have suffered injury to the head and face.

The endeavor of the instruction laboratory has been throughout, that if the work desired was United States work then it should be done with the proviso that the bureau for which it was done would replace the material so used to the Surgeon's General's office, so that the actual effect was that the officer desiring the material simply furnished the raw material and the negatives owned by the Surgeon General's office were used to furnish the copy, thus saving the United States a large amount of money.

Nearly two years since drawings were made by Mr. Fitz Simons, an architect of Washington, for the erection of a new building, looking to the better storage and care of the valuable material gathered here, together with study rooms, and assembly rooms where the medical professions might get together for the benefit of their patients and of the nation, and where their work might be concentrated and they could utilize the literature collected for this purpose by the United States. These plans and thoughts were formulated and transmitted to the Commission of Fine Arts of the District of Columbia, to whom has been assigned the task of beautifying this great city of Washington and the arranging of its educational institutions. The thought appealed to them in such a way that they promptly accepted the idea and assigned a building site in their annual report to the Congress of the United States, in the square bounded by Four and one-half, B, Sixth, and A Streets, SW. The original plans were afterwards modified, so as to make the exterior of the building correspond, with the designs of the National Commission of Fine Arts, so that the building when erected would correspond in every particular with the plans of the commission for the beautification of the city of Washington.

XXII. Medical and Surgical History.

Special Order A. G. No. 196 (Aug. 23, 1917) created a "board to collect and prepare materials for a medical and surgical history of America's participation in the European War." This board at the outset ascertained by correspondence the status of similar projects in England and France. Its own existence was made known to the Medical Corps by means of a circular, wherein medical officers in the field were urged to keep notebooks of their own concerning important matters of personal observation; if responsible for medical and surgical records at the front or at a hospital, to see that such reports are as complete and accurate as possible, and to take every precaution against loss of records, whether in the possession of the medical officer, or in the attempt to transmit such records. Physicians and surgeons were encouraged to make as liberal notes as the circumstances permit concerning important cases, and to lodge such memoranda with the historical board; being assured that the maker of such notes would not impoverish himself in the transfer of such materials. It was made clear that the making of this history would not be a bureaucratic undertaking, but democratic, giving credit wherever credit was due.

In a subsequent printed circular of the Surgeon General, medical officers were urged to keep this historical purpose in mind throughout the war; to contribute official and private writings (their own or others) having historical interest or value; to collect printed matter, pictures, specimens, models, and other significant objects, and materials secured by exchange or otherwise from representatives of other governments. The board is made responsible for the receipt, custody, cataloguing, and acknowledgment of all materials received.

Commanding officers of base hospitals have been authorized to make subject indices of medical and surgical cases, and to make and transmit histories of epidemics, or of unusual cases. Histories of cantonments are especially desired and may have been sent in. Arrangements have been made for safe custody and transportation of historical materials accumulating on the western front and in Italy.

Through the courtesy of The Adjutant General's office and the Provost Marshal General's office the medical records of recruitment and mobilization will be at the command of the Surgeon General's office for the purpose of history.

Arrangements have been made whereby The Adjutant General's office allows the records of physical examinations to be taken to the medical record division of the Surgeon General's office where the statistical material is taken off. These records are then returned promptly to The Adjutant General's office for filing.

Arrangements have also been made by the medical record division with the Provost Marshal General's office whereby a copy of the physical examination for each man placed in class 5, by local boards as permanently disqualified for military service is sent by the local boards through the adjutant general of the state to the Surgeon General's office for filing.

It will thus be possible to obtain from these two sources—that is, The Adjutant General and the Provost Marshal General—a complete medical military census of the men of draft age in this country.

The division of medical history occupies space in the Surgeon General's Office for its routine work and for cataloguing and filing the materials which are of current or frequent use. Space for the safe storage of massive materials is provided in the Surgeon General's museum and library.

Those who are familiar with the conditions under which the materials for the Medical and Surgical History of the Civil War were obtained will recognize a great advantage in the organization of the historical purpose very early in the present war. The medical records of the Civil War were available only at the discretion of The Adjutant General. The medical records of the Provost Marshal General were not available.

Under present conditions the Surgeon General will have possession and use of all medical and surgical records, including those of The Adjutant General's Office and the Provost Marshal General's Office under the conditions as stated above.

XXIII. Army Medical School.

Owing to the increase of the Army and the large number of existing and prospective vacancies in the Medical Corps occasioned thereby; the addition to the regular course of an elaborate course in orthopedic surgery; large successive classes of enlisted men receiving instruction in laboratory technique, for detail to base hospitals, stationary and mobile laboratories; it has been found necessary to make further provision for these increased activities. To accomplish this end the adjoining premises at 458 Louisiana Avenue have been rented and fitted up as office rooms, metal and woodworking shops, plaster band-age shop, miscellaneous laboratories, drafting rooms, and classrooms. To further accommodate the activities of the school the premises at 472 Louisiana Avenue have been leased and will be ready for occupancy by July 1, 1918. This latter building will be occupied by the orthopedic section of the school, while the building vacated by this section will be given over to the personnel officer, the property officer, and the commanding officer, Army Medical School Detachment of the Medical Department.

TWENTY-FIRST SESSION.

The third section began August 1, 1917, and ended October 4, 1917.

TWENTY-SECOND SESSION.

The first section began November 12, 1917, and ended February 2, 1918.

The second section began March 11, 1918, and ended June 15, 1918.

The number of accepted candidates appointed in the Medical Reserve Corps and ordered to the school for instruction in the regular course was 186. Of this number 9 elected to pursue the orthopedic course, one of whom was relieved from attendance and ordered to his home by reason of physical disqualifications before the completion of the course.

No members of the Organized Militia attended either section.

The postgraduate course for officers of the Medical Corps was not given; however, one first lieutenant, Medical Corps, attended one of the classes in orthopedics.

Of the 177 student candidates who completed the regular course of instruction, 172 qualified at the final examinations. Of this number, 169 were recommended for commission in the Medical Corps, 3 failing to receive such recommendation because of deficiency in general aptitude for the military service.

Each of the 8 student candidates who pursued the orthopedic course was graduated, 7 of them being recommended for commission in the Medical Corps, 1 failing to receive such recommendation because of deficiency in general aptitude for the service.

The number of Medical Reserve Corps officers ordered to the school for the course in orthopedic surgery and not candidates for commission in the Medical Corps was 53. Of this number 1 was found physically disqualified and ordered to his home; 18 were relieved from duty at the school before the completion of the course and sent overseas and to hospitals and training camps throughout the country for the purpose of instructing in orthopedic surgery; 28 qualified in the final examinations and were graduated from the school; 2 of these later took the preliminary examination and were recommended for commission in the Medical Corps.

One officer of the Medical Corps and one surgeon, United States Navy, attended the course in orthopedic surgery.

The third section of the twenty-second session will commence about July 10, 1918.

The section of orthopedic surgery of the Army Medical School was established November 12, 1917, and has been housed, up to June 30, 1918, in the building adjoining the main school building, at 458 Louisiana Avenue. This section provides a course of instruction in the theory and practice of orthopedic surgery for certain student officers in attendance at the Army Medical School, and certain other medical officers ordered to the school for this purpose.

Besides the offices and classrooms the orthopedic annex is provided with shops and laboratories equipped with a motor-driven lathe, combination hand punch and shear, bench drill, motor-driven emery grinder, work benches, laboratory tables, appliances for the application of plaster bandages and dressings, etc.

In addition to the commissioned personnel there is assigned to this section an enlisted personnel of 36 men, through whose equipment and qualifications the section is capable of serving a new and most useful function, aside from that of a teaching institution, namely, that of a mechanical unit for such experimental, developmental, and repair work as might be required, not only by the division of orthopedic surgery, Surgeon General's Office, but by the Medical Department as a whole.

During the past year a number of officers of the Medical Reserve Corps and Sanitary Corps have been sent to this school from the Rockefeller Institute for Medical Research for additional laboratory instruction. Approximately 150 officers received this instruction. This course is of one month's duration and is given each month. The course embraces the following subjects: culture media, bacillus typhosus, bacillus paratyphosus "A," bacillus paratyphosus "B," isolation and identification from stools, dysentery bacillus, meningococcus, pneumococcus, standard agglutination method, anaerobes, staining of tubercle bacillus, gonococcus, malarial parasites, and intestinal parasites.

Enlisted men of the Medical Department, some of whom are sent here, and others enlisted at the school for the purpose, are given training in laboratory technique. These men are grouped in three classes: the beginners' class of laboratory technicians, the advanced class of laboratory technicians, and the class of X-ray technicians.

The beginners' class of laboratory technicians receives instruction in the cleaning of glassware, sterilization, the use of the microscope, routine stains, in the bacteriological laboratory. This course is of two months' duration and is given every two months.

The advanced class of laboratory technicians receives instruction along the same lines as the regular officers' class in the bacteriological laboratory, with the addition of staining the gonococcus, tubercle bacillus, and the examination of urine. This course is of two months' duration and is given every two months.

Half of the time of these two classes is spent in the chemical laboratory, where they receive practically the same instruction as is given the regular officers' class, special topics in volumetric analysis and certain laboratory methods of the Medical War Manual No. 6, and the sanitary analysis of water and sewage.

Four hundred and thirteen men received instruction in these classes. Of these men 30 have been commissioned as second lieutenants in the Sanitary Corps, and 37 more have been recommended for commission as second lieutenants, Sanitary Corps.

The class of X-ray technicians is given lectures and practical laboratory instruction in X-ray technique, embracing the construction and operation of X-ray machines in general, wiring, coils and interrupters, tubes, current, plates and developing, fluoroscopy, localization of foreign bodies, osteology, etc. These men, upon completion of the course of instruction, are given further practical experience by working in the X-ray laboratories of the Army Medical School, United States Soldiers' Home Hospital, Walter Reed General Hospital, Georgetown University Hospital, George Washington University Hospital, Children's Hospital, Episcopal Hospital, and Providence Hospital. Ninety-nine enlisted men took this course, of whom three have been commissioned in the Sanitary Corps.

A special short course of instruction, in the form of lectures, was given to a group of transport surgeons ordered here for this purpose. These lectures covered, in a brief way, the following subjects: general and military surgery, head surgery and surgery of the nervous system, amputations, Medical Department administration, insanity and functional neuroses, deafness and speech defects, blindness, tuberculosis, and paper work. The lectures were given by members of the faculty of the Army Medical School and officers of the Medical Reserve Corps on duty in and about Washington.

This report would be very incomplete if it did not include a summary of the activities in which the Army Medical School is engaged aside from its functions as a teaching institution.

Briefly, these activities are summarized under the various heads as follows:

During the year just closed the mobilization of the National Army has required an enormous production of vaccine. This production has gone forward without delay, which reflects great credit on the officers and enlisted men engaged in the work. Not only has the quantity produced been adequate at all times, but the requirement for additional glassware and new laboratory installations and apparatus have been met with no interruption, and vaccines have been packed and shipped, so far as practicable, within 24 hours after receipt at the school of the requests.

Over 15,400 liters of vaccine, more than 18,000,000 doses, have been shipped during the fiscal year. This is believed to be a record for all laboratories at any time, including the present war. The cost value of the vaccines manufactured at the school during the year was approximately $900,000. For the commercial vaccines, this represents a retail market value of $4,500,000, a saving to the Government of approximately $3,600,000.

During the year the method of suspending bacterial vaccines in oil has been tested and reported on, and the triple typhoid vaccine suspended in oil is being adopted by the Surgeon General's Office. It is understood that as rapidly as the machinery for production is available the oil-suspended vaccine will replace the saline triple typhoid vaccine.

An oil-suspended dysentery vaccine has been tested and has given evidence of protection. The Surgeon General's Office expects to try this vaccine on a large scale during the coming summer.

The pneumococcus vaccine suspended in oil has been tested and has given definite evidence of protection against pneumococcus Types I and II.

Oil-suspended vaccines of the meningococcus, streptococcus, and cholera vibrio have been tested, but the tests have not yet produced far enough to enable us to express an opinion of the value of these vaccines.

The Wassermann reaction has been performed continuously as a diagnostic test for syphilis. During the year ended June 30, 1918, the total number of Wassermann tests in the laboratory was 19,524, of which 531 were reexaminations; 16,532 were also made in accordance with existing orders calling for a Wassermann reaction on applicants for commission, enlisted candidates for various service schools, recruits, etc.; and 2,461 examinations of new cases. Of the latter, 1,280 were of syphilis or suspected syphilis, and 1,181 were from cases suffering with diseases other than syphilis. In addition there were 681 tests made for gonococcus fixation, 242 spinal fluids in three dilutions. In addition to this there were 681 gonococcus fixation tests performed. These at ordinary commercial rates of $5 per test would have cost the Government $101,025.

A liberal estimate of the cost of this work, including the salaries of one lieutenant colonel, one captain, and one sergeant, is only $8,836. This item alone represents a saving to the Government of $92,189.

The chemical laboratory has received and reported the analysis of 137 various substances, and has examined 14,635 specimens of urine. The chlorination and purification of certain substances used in connection with dichloamine T was undertaken during the past year. To date there have been produced 105 liters of chlorinated eucalyptol, 373 liters of chlorinated mineral oil, and 223 pounds of chlorcosane. A comparison of the actual cost of production of these products and the lowest market price follows:

	Market price.	Cost of production.
Chlorinated mineral oil (per liter)	$3.07	$0.87
Chlorinated eucalyptol (per liter)	9.92	3.53
Chlorcosane (per pound)	2.00	.45¼

The laboratory has been unable to produce these materials of dependable purity and has effected an estimated saving of $1,835.

A bank of 40 stills for water analysis has been designed and is being built to take care of the increased demand of the classes.

In addition to the teaching work the X-ray department has done a large amount of work in the form of examinations and treatment for the officers and enlisted men and their families stationed in and near Washington.

The X-ray laboratory has been remodeled to a certain extent, the photographic branch being moved to the sixth floor, where photographic reproductions and photomicrographs are made and lantern slides prepared. More privacy has been given to the plate-examining room, in which have been installed special illuminating boxes and special facilities for the cataloguing of plates. An additional room has been provided for the examination of teeth and extremities. The former photographic room has been converted into an additional operating room for instruction.

This department has aided in the designing and completing of an X-ray ambulance for the United States Army portable X-ray unit. The ambulance has been driven to Ontario, Canada, where it was demonstrated for the benefit of the Canadian Government.

The portable field outfit, the portable bedside unit, and numerous other new pieces of apparatus, were tested out in conjunction with the duties of the laboratory. Various intensifying screens, photographic plates, and X-ray accessories were tested out and results reported.

The conducting of physical examinations at this school has become a function of ever-increasing magnitude. The scope of the work has been broadened so that it not only includes the physical examinations of officers for promotion and of applicants for the various Officers' Reserve Corps, but also for the determination of the physical fitness of officers for overseas service and the examination of men inducted as privates in the Medical Department.

The board is fortunate in having all the modern equipment at hand necessary for performing a most thorough physical examination, and in physical conditions of unusual obscurity medical officers highly skilled in medical and surgical specialties are called in consultation. As a result, all physical examinations are conducted along routine and well-established lines with a maximum of accuracy and expedition.

The number of physical examinations made average approximately 750 per month, and ample facilities are provided to handle twice this number, should the need arise, without in any way affecting the standard of the examinations made.

A large number of Medical Reserve Corps officers are sent through the Army Medical School, preparatory to service overseas. The school assumes entire charge of them, giving instructions as to uniform, equipment, personal reports, insurance, money affairs, etc. Here they are vaccinated against typhoid and paratyphoid fevers and smallpox, are physically examined, and, at the proper time, reported ready. When orders arrive for them, these officers are furnished with true copies of same, with adequate instructions for carrying them out. This work comes under the head of "Foreign Service Department," and is very successfully taken care of through a card-index system, and is handled in the office of the chief clerk.

Here, also, are indexed each member of the faculty, the student officers, every officer ordered here for duty or station, all the civilian employees, and all of the enlisted men. The officers and men, upon reporting at the school, are registered, sufficient data to identify each man being recorded; the date of departure and destination are noted on each card, after which the card is placed in the dead file, where it becomes an index for guidance in sending subsequent communications and forwarding mail. The monthly return of medical officers is made, the records and marks of the student officers computed, and the merit rolls and the relative proficiency lists (which become a part of this report) are prepared in this office.

The printing department of the school has grown to rather large proportions, the personnel and apparatus of this plant being frequently taxed to its utmost. Examination questions for entrance to the Medical Corps, Dental Corps, Veterinary Corps, and the Medical Reserve Corps, examination questions for the final examinations at the school, bacteriological and chemical technique cards, bulletins, miscellaneous cards and blank forms for use at the school and labels for all the vaccines shipped from the school are among the many varieties of work turned out in this department.

During the year the total number of prints made was 1,518,100, including 15,100 sheets of examination questions. The preparation of these questions involved the folding of these sheets and the sealing of 17,161 envelopes.

In connection with the printing department, one man, a private, first class, Medical Department, is employed in illustrating and in engrossing diplomas and other certificates and charts.

The following exhibits the course of instruction: military surgery; military hygiene; bacteriology, pathology, and laboratory diagnosis; military and tropical medicine; medicine department administration; ophthalmology; roentgenology; sanitary chemistry; sanitary tactics; shoes and feet; shop work; plaster work; clinical work; anatomy and operative surgery.

A course in elementary French has been added to the curriculum of the school in the past year. This instruction is given by a civilian, a native Frenchman, who is paid by individual subscription of members of the class. While this course is not compulsory, most of the student officers have availed themselves of it and have been much benefited by it.

During the year a number of special lectures were given, including a series by Col. Goodwin, of the British Royal Army Medical Corps, now Surgeon General of the British Army, covering the work of the British officers under field conditions in the trenches, and of the field ambulances, including descriptions of evacuations of the wounded, gas attacks, etc. Col. Dercle, of the French Medical Corps, delivered a very useful and instructive lecture on "Field Service with the French Armies;" Maj. Opie, of the Medical Reserve Corps, one on trench fever; Maj. Albee, Medical Reserve Corps, on bone transplantation; Maj. Salmon, Medical Reserve Corps, on war neuroses; Dr. Simon Baruch, on gudrotherapy; and Dr. Case, on gastroenterological work from the X-ray standpoint. Some of these lectures were illustrated with motion pictures and lantern slides.

The recommendation is renewed that the present makeshift, scattered buildings be replaced by special, permanent buildings, to be constructed in grounds of sufficient extent to make it possible to put the classes in barracks, and part of the time in camp, to give the students a place to drill, to be instructed in field work, practical sanitary tactics, equitation, etc. It is to be hoped that the facilities will be provided to make the Army Medical School a postgraduate institution, with all the necessary equipment and facilities for teaching everything necessary, including field work, to make Army medical officers out of selected graduates of medical schools.

In normal times the course will probably be extended again to eight months, and with increased accommodations and facilities and good drill and camping ground very large classes can be instructed in all the special duties of Army medical officers, and at the same time the laboratories can be utilized as at present, but on a much more extended scale, for research work, clinical diagnosis, sanitary chemistry, X-ray work, and the manufacture of all sera, vaccines, and antitoxins for the Army.

XXIV. THE AMERICAN RED CROSS.

(NATIONAL HEADQUARTERS, WASHINGTON, D. C.)

During the past year the American Red Cross has endeavored to assist the Medical Department in every way that was deemed desirable in the care of the troops of the United States, whether in camp, cantonment, or hospital, both in the United States and abroad. The work, outlined as follows, was authorized by the War Department:

There were organized throughout the country 50 base hospitals, all of which originated in the large hospitals or medical schools, and from these institutions many of the leaders in the medical profession were obtained as members of the staffs of these base hospitals.

There were also organized 45 ambulance companies: all of these were transferred to the Medical Department of the United States Army. These companies were organized in the various communities from Maine to California.

The department of military relief has been actively interested in the problem of reeducation of crippled soldiers and, as authorized, has established in New York an institute for crippled and disabled men where the reeducation of cripples is now being conducted, utilizing the institute for civilian cripples until such time as it may be needed for crippled soldiers. This institute has also instructed classes of vocational teachers, who can be used hereafter in such institutions as the Government may establish in connection with its program of reeducation.

An institute devoted especially to the blind has been organized in Baltimore, which expects to cooperate with the efforts of the Medical Department in the reeducation and the replacement of all the blind soldiers on their return to the United States.

The bureau of sanitary service of the department of military relief cooperates with the Surgeon General's Office, the Public Health Service, and the local health authorities in the extra cantonment zones in order to protect the military forces in the camps from contagious and infectious diseases present in the immediate surroundings of these camps. In a number of the southern camps work has been undertaken to eradicate the possibility of mosquito transmission of malarial infection. Systematic inspections are carried out of dairies, milk depots, restaurants, and all places where food or refreshments are sold. Clinics have been established in practically all the extra cantonment zones for the treatment of carriers of venereal infection, with the idea of eliminating these diseases at the source of origin. In this work the Red Cross has cooperated with the training camp activities commission and the local authorities, being greatly assisted by the recent legislation which has been passed in practically all the States in the Union aimed at assisting in this campaign of prevention. Four laboratory cars were prepared by the Red Cross, using old Pullman cars and having them completely outfitted with all the modern apparatus necessary to conduct a modern laboratory. From the beginning the work of these cars was so obviously successful that the Surgeon General's Office requested the transfer of three of them to his department, which was done.

The first-aid division of the American Red Cross has continued the work which has been carried on in previous years in its campaign of education and instruction along first-aid and accident-prevention lines and has tremendously increased the scope of its work. The main idea, at the present time, is to disseminate this first-aid instruction, so that with the withdrawal of many nurses and physicians from civil life the general public will be better fitted to care for their own health without professional assistance.

Working in very close connection with the office of the Surgeon General of the Army, a number of orders have been received from the Medical Department of the Army for surgical dressings and hospital garments for use both in this country and abroad. The Medical Department has furnished the raw materials and the Red Cross has had them made up by volunteer workers in its various chapters in accordance with the approved standards.

In France the American Red Cross has enormous warehouses containing large stocks of surgical dressings, hospital garments, and supplies. These have at all times been at the service of the chief surgeon of the American Expeditionary Force, but the records for the amount of supplies delivered over there are not available at this time here.

The largest single order placed with us was for front-line packets, to be delivered in regular installments. Up to the present time there have been delivered on account of this order over 900,000 parcels in three different sizes, each parcel containing from 8 to 16 dressings, depending upon its size. In addition there have been delivered more than 2,000,000 various other dressings.

The Red Cross has endeavored to meet every demand for hospital garments which we have been asked to furnish to the Surgeon General's office, and up to this time we have delivered various kinds of chapter-made hospital garments, amounting to about 100,000.

In compliance with the request of the Secretary of War, contained in his letter of January 26, 1918, addressed to Mr. Davison, the Red Cross has extended the communication service which it is doing abroad to the Army hospitals in this country. Representatives have been placed in the base and general hospitals, and it is their duty to supplement the communication service rendered by the Army officers to such extent and in such a manner as shall meet with the approval of the officers. These Red Cross representatives visit the wards daily and undertake to keep in constant touch with all of the patients. They provide writing materials for men who wish to write letters. They write letters for such men as wish to communicate with their families and can not write for themselves, and keep the families advised of the progress of very ill patients. The extent to which this service has developed in any given hospital depends to a very large extent on the wishes of the commanding officer and varies considerably in the different hospitals. Taken as a whole the service has rapidly grown to large proportions and the volume of correspondence is now considerable. The service rendered very often helps to relieve the mind of the patient and in this way helps his recovery, and, on the other hand, the receipt of letters by the families from a disinterested source, advising them of the progress of the patients and assuring them that they are receiving the best of medical attention, does much to quiet rumors of inefficiency and lack of proper care of enlisted men. This is shown by the steady stream of letters the Red Cross receives from families expressing thanks for the letters and the interest the Red Cross is taking in the boys.

The Red Cross has undertaken to erect convalescent houses at all of the base and general Army hospitals in this country, which are intended as a place of recreation for the convalescent patients of the hospitals. A standard plan of these buildings in two sizes has been carefully prepared and has been approved. Up to the present time contracts have been signed for the erection of 48 of these buildings at the Army hospitals and over 20 of these buildings have been completed and are now in operation.

While these buildings are intended primarily for the use of convalescent patients, they are available for such service as the officer in command may desire. These buildings include a number of bedrooms, which will be available for the use of relatives of men who are on the danger list in cases where the commanding officer desires that such relatives shall stay at the hospital over night. A small kitchen is included, which will make possible providing food for such visitors, and also possibly for such Red Cross personnel which it may prove necessary to maintain in the building.

In some cases these buildings have been used as an information office where visitors to the hospital can see patients, secure information concerning them, arrange for passes to visit the wards, etc. In some of the camps this branch of service has developed to such an extent that it has proved necessary to erect a separate building in which the information service can be carried on in order that the constant stream of visitors will not interfere with the use of the convalescent buildings by the convalescents themselves. This has occurred in cases where the camps are located near large cities, from which there has been a constant stream of visitors.

Home service has been undertaken to assist in maintaining the morale of our fighting forces by extending assistance to the families of enlisted men to preserve the essential standards of home life, to meet the problems arising out of diminished income, sickness, care, discipline and education of children, household management, business and legal difficulties, unsatisfactory working conditions, loneliness, mental depression or defect, vice, or physical disability.

The emergency service in this country, as in the seat of war, is ready to respond to any call which may come from the officers of the Army to render emergency service of any kind whatsoever. Medicines and hospital equipment of various kinds have been provided in many places to meet urgent needs.

At the request of the Surgeon General, two Ford touring cars and one Ford truck were donated to each of six different base hospitals. The Red Cross has also donated a number of other automobiles from time to time to hospitals in different parts of the country in response to requests received from commanding officers in cases where there was a shortage of transportation facilities. These automobiles have been used by the hospital staff to enable them to render more efficient service.

The associate field directors in charge of hospital service have been called on to perform a great variety of different kinds of service for the patients and errands of every description have been undertaken.

At some of the camps classes for patients have been arranged, ranging from primary grades for illiterates to classes in French, which have been taught by regular teachers from near-by schools, and the patients have been interested in various sorts of handicraft, especially in the psychiatric wards.

In order to administer the activities above outlined efficiently, it has been found desirable to place an associate director in charge of hospital service at each of the base and general hospitals. This representative of the Red Cross is accredited to the commander of the base hospital in accordance with the provisions of General Order No. 17 and is responsible to the commanding officer for all Red Cross activities conducted in the hospital. In order to administer the communication work efficiently it has proved necessary to provide several assistants for the associate director.

The nursing personnel of 52 base hospitals has been organized. In the early days of the war these were increased from 65 to 100 nurses. Twenty-one hospital units have also been organized with a nursing personnel of 21 nurses each. The nursing personnel of 6 special hospital units was entirely or partially organized, the deficiencies being supplied from the cantonments or from the members of the Regular Army Nurse Corps. These include the orthopedic unit, the head and neck surgery unit, the fracture unit, the psychiatric unit, Reconstruction Hospital No. 1, and a mobile operating unit. The personnel of all these units has been assigned to duty either abroad directly or to the cantonment hospitals.

The total number of nurses supplied to the Military Establishment since the declaration of war to the first day of July, 1918, has been 10,438. Of these, 546 were assigned previous to June 30; 92 for the Mexican border, and the remainder were attached to 7 base hospitals assigned prior to June 30, 1917, for foreign service.

All nurses assigned to foreign service, not only as members of the Red Cross Reserve, but as members of the Regular Army Nurse Corps, have been supplied by the Red Cross, at an approximate cost of $200 per nurse, with uniform and other personal equipment. The dietitians and clerical workers assigned to service with the base hospitals have also been equipped at approximately the same cost.

The names of 31 nurses, highly qualified, with administrative experience, have been recommended to the office of the Surgeon General for appointments, in order to prepare for the examination as chief nurse. It is understood that these nurses enter the Regular Army Nurse Corps for the period of the war.

XXV. PORT OF EMBARKATION, HOBOKEN, N. J.

The Medical Department at the port of embarkation was first represented by a medical superintendent. He had one assistant and one clerk. He was directly under the general superintendent, Army Transport Service, and his activities were very limited. Under the existing circumstances it was almost impossible to discover and remedy any unsanitary conditions, although such conditions did exist. The immediate need was the medical supply and equipment of the few transports available and the assignment of sufficient commissioned and enlisted personnel to perform the duties of the Medical Department aboard same.

When the office of the surgeon, port of embarkation, was established supervision of the duties of the Medical Department, Army Transport Service, were also assumed. After the first survey of the situation the personnel on duty was deemed insufficient in number and one of the first steps of the surgeon was to surround himself with efficient commissioned and enlisted personnel who would, as it were, grow up with the office, thereby anticipating the growth of the port of embarkation.

PERSONNEL DIVISION.

In June, 1917, the first convoy of United States troops was sent to France, which necessitated the assignment of certain medical personnel, both commissioned and enlisted, for duty on transports. These, in addition to the personnel on duty in the office of the medical superintendent, Army Transport Service, formed the nucleus of the present organization known as the office of the surgeon, port of embarkation. Being directly under the control of the War Department, it was necessary for this office to assume the duties of a department surgeon. To that end the duties relating to personnel were divided into two sections, i. e., those relating to personnel assigned for duty, called the permanent personnel division, and those passing casually through the port, known as casual personnel division. Each of these was under the direction of a noncommissioned officer, while the two divisions were under the control of a commissioned officer.

TRANSPORT DIVISION.

This division was the office of the medical superintendent, Army Transport Service, and embraced his duties as laid down in transport regulations, and has been known under various names—first, office of medical superintendent; second, sanitary division; third, transport division.

Primarily the duties of the medical superintendent were to act as sanitary inspector for the port of embarkation; supervise the administration of Medical Department activities on board transports; make and cause to be made required embarkation physical inspections; provide for the reception and care of military persons unable to travel; provide necessary supplies and equipment for the transport hospitals; provide sufficient medical personnel for the proper care of the sick aboard same; to obtain necessary information in regard to movement of troops and transports. Most of these duties have been delegated to or assumed by other divisions of this office, to wit:

Supervision of Medical Department administration and detail of medical personnel aboard transports—to the personnel division.

Duties of sanitary inspector—to the sanitary inspector's division.

Provision for reception and care of military persons unable to travel—to the sick and wounded division.

Provision of necessary supplies and equipment for transport hospitals—assumed first by the property division and later by the transport supply division.

Acquisition of information in regard to movements of troops and transports—to the liaison officer.

As now organized, the duties of the transport division are as follows:

Supervising the embarkation of troops, conducting preembarkation physical inspections, disposing of such cases as are detained at time of embarkation; proper and timely designation of medical officers to perform above duties; supervising debarkation of sick and wounded until such time as they are turned over to sick and wounded division, keeping necessary records of the division.

Personnel on duty, commissioned 53, enlisted 10.

During October communication was received to the effect that many venereal cases were arriving overseas and recommending that measures be adopted to check same. The first venereal inspection was made on October 15, 1917, on trains bearing the Third United States Cavalry. Nineteen cases were removed. Then followed venereal inspection of all troops for overseas in accordance with General Order No. 21, headquarters, port of embarkation, October 22, 1917.

Following the first preembarkation venereal inspection routine inspections were made, but for venereal diseases only. During the early winter the advent of the communicable disease season brought further to the attention of the surgeon, the need of more extensive physical inspection, and General Order No. 3, January 8, 1918, headquarters, port of embarkation, and General Order No. 51, May 18, 1918, headquarters, port of embarkation, were made and included measles, mumps, cerebrospinal meningitis, scarlet fever, etc. By this time the sailings had increased and more inspectors were added to the division.

FINANCE DIVISION.

This division was established when the office of the surgeon was first organized. The principal duty was the purchase of supplies.

Later it was incorporated with the property division, and when the growth of the office required same, it was again instituted as a separate division under the control of the executive officer. The correspondence and files divisions were also included in the division at this time merely for the purpose of administration.

In December, 1917, the finance division was separated from the correspondence and files divisions and entirely reorganized.

ATTENDING SURGEON'S DIVISION.

Shortly after the port of embarkation was established some certain place for the medical and surgical treatment of military persons on duty here was needed. A dispensary being shortly established an attending surgeon was appointed and placed in charge thereof. Increase in the personnel on duty at the port of embarkation necessitated the assignment of additional personnel, and for administrative purposes the office of the attending surgeon was absorbed by the office of the surgeon, port of embarkation, and made a separate division to be called attending surgeon's division.

Increase in the jurisdiction of the commanding general, port of embarkation, made it necessary to establish certain first-aid and prophylactic stations, and they were placed under the control of this division.

SICK AND WOUNDED DIVISION.

In October, 1917, this division was established for the purpose of checking and forwarding sick and wounded reports of the various organizations under the control of these headquarters. This was placed in charge of a noncommissioned officer and under the supervision of the chief clerk.

Anticipating the growth of the port of embarkation and the probable return of large numbers of sick and wounded from overseas, the division was reorganized in December, 1917, and placed in charge of a commissioned officer. As organized, the duties are as follows:

THE ADMINISTRATIVE SECTION.

Conducts all correspondence relative to the sick and wounded division.

Adjusts bed capacities in the embarkation hospitals by timely transfers of patients.

Arranges all transfers of overseas patients from the port to the service of the interior.

Directs disposition of patients with contagious and communicable diseases.

TRANSPORT SUPPLY DIVISION.

This division was organized in February, 1918, to arrange for a systematic medical supply of transports. Prior to that time transports were supplied through the transport and property division. Owing to the small number of ships engaged in this work almost no attention was required to supply them, but as the number of ships increased, it was deemed necessary to have an efficient organization for this purpose.

The division was organized and assumed control of the medical supply of transports. No system of supplying being in effect, some time and study was allotted to standardizing the amount and variety of supplies and equipment according to the number of troops carried. The plan adopted has been in operation for over four months and so far is satisfactory. In April the Surgeon General authorized the employment of ship's surgeons (civilians) of commercial vessels carrying troops, to perform certain services, to be paid from the Medical Department appropriation. This division being in direct contact with the persons concerned, the duties connected with the procurement of services and preparations of vouchers, etc., were assigned to it.

From a force of 1 commissioned officer and 1 enlisted man the personnel of the division has been increased to 2 commissioned officers and 14 enlisted men.

SANITARY INSPECTOR'S DIVISION.

This division was established for the purpose of making the various sanitary inspections at the port of embarkation, which are required by War Department orders and other regulations.

Due to the increase in the personnel of this port and the large amount of troops embarking for overseas, the transport division could not properly perform its allotted duties. It was necessary, therefore, to assign some of them to another division. The sanitary inspector's division being already established, it was decided to allot the sanitary inspection duties, except those concerning the inspections of troops as required by general orders, headquarters, port of embarkation, to this division.

As originally organized and with its added duties, the functions of the sanitary inspector's division are as follows:

Sanitary inspections of all buildings, camps, piers, transports, etc., under control of these headquarters.

Fumigation.

Physical inspections of troops stationed at port of embarkation.

HOSPITALS AND CAMPS.

Sanitary inspections of the hospitals under the authority of the port of embarkation are carried on daily, Sunday excepted. One officer is detailed for this work. A list of the hospitals visited, with the date of inspection, is made of record. Sanitary deficiencies of note are made the subject of special report, which is forwarded by this office to the Surgeon.

A monthly report of Camp Merritt and of Camp Mills is made. Reports of same are made of record.

Detachments under the jurisdiction of these headquarters are inspected twice a month, or oftener, if necessary.

SHIPS.

The following classes of ships are inspected by this office:

United States Army troop transports.

United States Army chartered cargo transports,

Commercial troop ships carrying United States troops.

Immediately upon the arrival of a ship belonging to the above classes, a sanitary inspection of this ship is made, and all deficiencies noted. This is made in the form of a report to higher authorities, with appropriate recommendations for correction. Before the departure of these ships another inspection is made with the view to checking up the degree to which deficiencies have been corrected. The second report is forwarded through the same channels.

FUMIGATION.

This office has charge of the fumigation of ships and buildings under the authority of these headquarters.

SPECIAL INSPECTIONS.

Conditions calling for special sanitary inspections are referred to this office.

The duties of this office have increased quite rapidly, due to the addition of a large number of commercial troop transports for the transportation of our troops abroad. The personnel has been increased from two commissioned medical officers to seven commissioned medical officers and five enlisted men. This office has enjoyed full cooperation of other offices under these headquarters and those of the British Ministry of Shipping.

The work of this office has to a great extent been hindered by the inability to have boat transportation always available when needed. The inspection of incoming troop ships is most important in view of the fact that many of them are not fitted to carry troops, and will not be so fitted until proper recommendations relative to equipment have been made. It is most essential that these recommendations be promptly made in order that the ships may be equipped before sailing, which in most cases is only a few days.

LIAISON OFFICER.

Prior to March, 1918, it was difficult for the different divisions to obtain the information regarding movements of troops and transports necessary to properly perform their duties. Relief was imperative and to that end a commissioned officer was appointed to maintain a liaison between this office and the different departments at these headquarters. Satisfactory results are being obtained. At present there is on duty in this division one commissioned officer.

TRANSPORTATION DIVISION.

Since this office was organized it has been one of the duties thereof to transport ever-increasing numbers of sick and wounded. First this was accomplished by the ambulance division, which was a separate division of this office, controlled by a noncommissioned officer, who was directly responsible to the surgeon, port of embarkation.

Owing the wide distribution of the various hospitals, it was necessary to obtain transportation from the local companies in the form of tickets. These were requisitioned for and issued by the property division, who also accounted for same.

In order to coordinate the different methods of transportation and eliminate any chance of misuse of same, it was decided to institute a new division, namely, the transportation division, whose functions would be that of directing the transportation of men and supplies, in so far as the Medical Department was concerned.

HOSPITAL DIVISION.

This division was organized in May, 1918, for the purpose of procuring suitable buildings in this vicinity for hospital purposes. There are five commissioned officers and two enlisted men on duty therein.

On May 23, a representative body of real estate men, all members of the Real Estate Board of New York, met and organized for the purpose of lending their aid, and as a result there was formed an advisory committee for this division.

Altogether more than 12,000,000 square feet of floor space have been surveyed, of which some 7,000,000 have been recommended or secured, and the balance classified as not available or not suitable.

The work of this division will soon be completed, and the personnel on duty therein will be assigned to another division.

DIVISION OF DENTAL SERVICE.

This division was organized in July, 1918, to meet the need of adequate dental supervision at the port of embarkation.

DIVISION OF LABORATORIES.

This division was established in July, 1918, for the purpose of centralizing laboratory facilities and the supervision of laboratory work at the port of embarkation.

DIVISION OF DOMICILIARY HOSPITALS.

Many offers of homes for convalescent soldiers having been made to the Surgeon General of the Army, and the surgeon, port of embarkation, it was decided to make use of these offers as far as possible. To that end it was decided to establish a division of this office for the purpose of organizing and supervising a system whereby these places would be used.

At present there are in use six places, with a capacity of 186 patients. Fourteen other homes, with a capacity of 1,498 patients have been offered, but have not yet been accepted for use.

Having given a history of the office by divisions, it will be well to revert to the time when the office was established, and take up the question of hospital accommodations.

When the port of embarkation was established, no provision had been made for hospital treatment. The port hospital at Port Jay was used for a time, also a civilian hospital, St. Mary's, in Hoboken, N. J. Arrangements were made with the proper authorities and 500 beds at St. Mary's Hospital were made available to the military. This hospital was designated as the hospital, port of embarkation, now known as Embarkation Hospital No. 1.

The base hospital at Camp Merritt was in the process of construction when the camp was occupied, and an overflow of sick necessitated the use of civilian hospitals. The ambulance at Snake Hill, Secaucus; Christ Hospital, Jersey City; Isolation Hospital, Jersey City; North Hudson Hospital, Weehawken; and Englewood Hospital, Englewood, N. J., were used until recently.

The almshouse at Snake Hill has been designated as an Army hospital, and is now known as Embarkation Hospital No. 2. In October, when the War Department ordered the detention of venereals, the New York State authorities placed the quarantine station at Hoffmans Island at the disposal of the Government, and the station was used for the treatment of venereals. Designated as Army hospital, Hoffmans Island, it is now known as Embarkation Hospital No. 3.

About the same time the hospital at Camp Mills became congested with sick, and in order to relieve conditions, all available beds in New York district were placed under the control of the surgeon, port of embarkation. He was also charged with the disposition of all patients. Due to lack of Army beds use was obtained of various civilian hospitals in New York City and Long Island. These were used until January, 1918.

When Camp Mills was reopened, spring of 1918, a base hospital was established at Mineola to care for the needs of the camp. Schuetzen Park, North Bergen, N. J., estimated capacity 300 beds, and the Greenhut Building (Debarkation Hospital No. 3), estimated capacity 3,000, are being prepared for service. Other hospital space has been or is being obtained.

PROVIDENCE HOSPITAL.

The act approved June 12, 1917, having appropriated $19,000 for support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon-General of the Army, for relief afforded was as follows:

Patients in hospital July 1, 1917	74
Admitted during the year	982
Total number treated	1,056
Average number admitted per month	88
Number remaining in hospital June 30, 1918	51
Total number of days' treatment afforded	25,574
Average number of days' treatment per patient	24
Average number of patients treated per day	70
Longest term of treatment (days)	365
Shortest term of treatment (days)	1
Number of patients in hospital during the whole year	4

H. FINANCIAL REPORT.

MEDICAL DEPARTMENT, UNITED STATES ARMY, 1918.

Medical and hospital department, 1918.

Appropriated by act approved May 12, 1917		$1,000,000.00
Appropriated by act approved Oct. 6, 1917		100,000,000.00
Refundments during the year		7,490.50
Treasury transfers from other appropriations on account of erroneous payments		3,108.28
Total to be accounted for		101,010,598.78
Disbursed during the year:		
Medical and hospital supplies	$44,845,095.69	
Motor ambulances and supplies	2,926,573.38	
Medical attendance and medicines (except at recruiting stations)	574,940.09	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	13,207.89	
Pay of employees	2,310,609.50	
Hospital laundry	675,095.89	
Expressage	3,508.30	
Gas and electricity for laboratory apparatus	2,670.79	
Expenses of medical supply depots	1,610.96	
Gas masks	13,476,896.78	
Miscellaneous	2,020.29	
		64,832,229.56
Transferred to American Expeditionary Forces, Europe (not to be accounted for to the Surgeon General, U. S.)		9,703,500.00
Transferred by Secretary of War to administrative control of Chief of Ordnance		650,000.00
Balance on hand June 30, 1918:		
In United States Treasury	17,552,456.12	
In transit from disbursing officers to the Treasury	5,021.96	
In hands of disbursing officers	8,267,391.14	
		25,824,869.22
Total accounted for		101,010,598.78

Medical and hospital department, 1917–18, act June 15, 1917.

Balance on hand July 1, 1917		$29,475,062.97
Refundments during the year		2,175.61
Treasury transfers from other appropriations on account of erroneous payments		5,068.00
Total to be accounted for		29,482,306.58
Disbursed during the year:		
Medical and hospital supplies	$20,912,189.93	
Motor ambulances and supplies	3,673,345.32	
Medical attendance and medicines (except at recruiting stations)	105,173.89	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	6,630.44	

Disbursed during the year—Continued.		
Pay of employees	$410,594.45	
Hospital laundry	64,651.20	
Expressage	1,420.36	
Gas and electricity for laboratory apparatus	746.81	
Expenses of medical supply depots	1,332.09	
Gas masks	1,080,783.67	
Miscellaneous	1,198.55	
		$26,258,066.71
Transferred to American Expeditionary Force in Europe (not to be accounted for to the Surgeon General, U. S.)		475,065.51
Transferred by Secretary of War to administrative control of Chief of Ordnance		262,500.00
Treasury transfers to other appropriations to correct erroneous payments therefrom		47,563.37
Balance on hand June 30, 1918:		
In United States Treasury	$1,932,671.75	
In transit from disbursing officers to the Treasury	1,320.00	
In hands of disbursing officers	505,119.24	
		2,439,110.99
Total accounted for		29,482,306.58

Medical and hospital department, 1917.

Balance on hand July 1, 1917		$723,698.77
Refundments during the year		1,921.31
Treasury transfers from other appropriations on account of erroneous payments		49,771.97
Total to be accounted for		775,392.05
Disbursed during the year:		
Medical and hospital supplies	$607,672.75	
Motor ambulances and supplies	13,870.58	
Medical attendance and medicines (except at recruiting stations)	51,968.82	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	9,589.24	
Pay of employees	12,474.03	
Hospital laundry	18,347.03	
Expressage	1,346.19	
Gas and electricity for laboratory apparatus	287.02	
Expenses of medical supply depots	264.97	
Miscellaneous	18.39	
		715,839.02
Treasury transfers to other appropriations to correct erroneous payments therefrom		25.70
Treasury refundments to other bureaus to correct erroneous payments therefrom		355.51
Transferred to American Expeditionary Force in Europe (not to be accounted for to the Surgeon General, U. S.)		6,328.97
Balance on hand June 30, 1918:		
In United States Treasury	$52,550.03	
In hands of disbursing officers	292.82	
		52,842.85
Total accounted for		775,392.05

Medical and hospital department, 1916–17.

Balance on hand July 1, 1917		$459,625.98
Total to be accounted for		459,625.98
Disbursed during the year:		
Medical and hospital supplies	$86,854.80	
Motor ambulances and supplies	354,356.57	

Disbursed during the year—Continued.		
Medical attendance and medicines (except at recruiting stations)	$749.05	
Expressage	363.40	
		$442,323.82
Balance on hand June 30, 1918:		
In United States Treasury	2,629.55	
In hands of disbursing officers	14,672.61	
		17,302.16
Total accounted for		459,625.98

Medical and hospital department, 1916.

Balance on hand July 1, 1917		$9,064.68
Refundments during the year		5.52
Total to be accounted for		9,070.20
Disbursed during the year:		
Medical and hospital supplies	$82.00	
Medical attendance and medicines (except at recruiting stations)	323.29	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	104.30	
		509.59
Treasury transfers to other appropriations to correct erroneous payments therefrom		24.50
Carried to surplus fund		8,536.11
Total accounted for		9,070.20

Medical and hospital department, certified claims.

Appropriated by act approved Oct. 6, 1917	$120.42
Disbursed during the year	120.42

Replacing medical supplies, 1918–19.

Amounts accruing to this fund during the year:	
On account of supplies transferred to other branches of the Government	$202,780.09
On account of supplies sold	24,533.65
On account of collections for medical supplies lost or destroyed	3,191.68
Refundment to appropriation	369.00
Total to be accounted for	230,874.42
Balance in United States Treasury June 30, 1918	230,874.42

Replacing medical supplies, 1917–18.

Balance on hand July 1, 1917	$73,141.67
Amounts accruing to this fund during the year:	
On account of supplies transferred to other branches of the Government	58,612.87
On account of supplies sold	6,245.29
On account of collections for medical supplies lost or destroyed	232.46
Refundments to appropriation	945.67
Total to be accounted for	139,177.96
Disbursed during the year	19.10
Balance in United States Treasury June 30, 1918	139,158.86
Total accounted for	139,177.96

Replacing medical supplies, 1916–17.

Balance on hand July 1, 1917	$$9,285.80
Amounts accruing to this fund during the year:	
On account of supplies transferred to other branches of the Government	120.50
On account of supplies sold	1.40
Total to be accounted for	9,407.70
Disbursed during the year for medical and hospital supplies	8,355.55
Balance in the United States Treasury June 30, 1918	1,052.15
Total accounted for	9,407.70

Replacing medical supplies, 1915–16.

Balance on hand July 1, 1917	$643.86
Disbursed during the year for medical and hospital supplies	475.36
Carried to surplus fund	168.50
Total accounted for	643.86

Hospital care, Canal Zone garrisons, 1918.

Appropriated by act approved May 12, 1917		$35,000.00
Appropriated by act approved Mar. 28, 1918		20,000.00
Total to be accounted for		55,000.00
Disbursed during the year		42,398.00
Balance on hand June 30, 1918:		
In United States Treasury	$2,000.00	
In transit from Treasury to disbursing officer	8,000.00	
In hands of disbursing officer	2,602.00	
		12,602.00
Total accounted for		55,000.00

Hospital care, Canal Zone garrisons, 1917.

Balance on hand July 1, 1917	$7,478.40
Total to be accounted for	7,478.40
Disbursed during the year	4,718.60
Balance in United States Treasury June 30, 1918	2,759.80
Total accounted for	7,478.40

Hospital care, Canal Zone garrisons, 1916.

Balance on hand July 1, 1917	$11,800.57
Carried to surplus fund	11,800.57

Library, Surgeon General's office, 1918.

Appropriated by act May 12, 1917		$10,000.00
Total to be accounted for		10,000.00
Disbursed during the year		2,496.20
Balance on hand June 30, 1918:		
In United States Treasury	$6,993.51	
In hands of disbursing officers	510.29	
		7,503.80
Total accounted for		10,000.00

Library, Surgeon General's office, 1917.

Balance on hand July 1, 1917		$$7, 386. 19
Total to be accounted for		7, 386. 19
Disbursed during the year		3, 339. 66
Balance on hand June 30, 1918:		
In United States Treasury	$3, 553. 58	
In transit from disbursing officer to the Treasury	492. 95	
		4, 046. 53
Total accounted for		7, 386. 19

Library, Surgeon General's office, 1916.

Balance on hand July 1, 1917	$4, 779. 55
Total to be accounted for	4, 779. 55
Disbursed during the year	694. 69
Carried to surplus fund	4, 084. 86
Total accounted for	4, 779. 55

Army Medical Museum, 1918.

Appropriated by act approved May 12, 1917		$5, 000. 00
Appropriated by act approved Mar. 28, 1918		2, 500. 00
Total to be accounted for		7, 500. 00
Disbursed during the year		2, 956. 06
Balance on hand June 30, 1918:		
In United States Treasury	$3, 500. 00	
In hands of disbursing officer	1, 043. 94	
		4, 543. 94
Total accounted for		7, 500. 00

Army Medical Museum, 1917.

Balance on hand July 1, 1917	$3, 601. 52
Total to be accounted for	3, 601. 52
Disbursed during the year	3, 015. 27
Balance in United States Treasury June 30, 1918	586. 25
Total accounted for	3, 601. 52

Army Medical Museum, 1916.

Balance on hand July 1, 1917	$498. 68
Total to be accounted for	498. 68
Disbursed during the year	67. 77
Carried to surplus fund	430. 91
Total accounted for	498. 68

Increase of compensation, military establishment, 1918.

Appropriated by act approved May 12, 1917	$33, 592. 82
Refundments to appropriation	18. 23
Total to be accounted for	33, 611. 05

Disbursed during the year		$10,490.89
Treasury transfers to other appropriations to correct erroneous payments therefrom		10,334.68
Balance on hand June 30, 1918:		
In transit from disbursing officers to the Treasury	$155.17	
In hands of disbursing officers	12,630.31	
		12,785.48
Total accounted for		33,611.05

Civilian military training camps, 1916–17.

Balance on hand July 1, 1917	$5,892.00
Balance in United States Treasury June 30, 1918	5,892.00

Artificial limbs, 1918.

Appropriated by act approved June 12, 1917		$210,000.00
Total to be accounted for		210,000.00
Disbursed during the year		172,252.00
Balance on hand June 30, 1918:		
In United States Treasury	$34,700.00	
In hands of disbursing officer	3,048.00	
		37,748.00
Total accounted for		210,000.00

Artificial limbs, 1917.

Balance on hand July 1, 1917	$7,960.74
Repayment to appropriation	50.00
Total to be accounted for	8,010.74
Disbursed during the year	2,284.50
Balance in United States Treasury June 30, 1918	5,726.24
Total accounted for	8,010.74

Artificial limbs, 1916.

Balance on hand June 30, 1917	$13,346.71
Carried to surplus fund	13,346.71

Trusses for disabled soldiers, 1918.

Appropriated by act approved June 12, 1917		$2,000.00
Disbursed during the year		769.87
Balance on hand June 30, 1918:		
In United States Treasury	$1,050.00	
In hands of disbursing officer	180.13	
		1,230.13
Total accounted for		2,000.00

Trusses for disabled soldiers, 1917.

Balance on hand July 1, 1917	$1,461.91
Disbursed during the year	51.00
Balance in United States Treasury June 30, 1918	1,410.91
Total accounted for	1,461.91

Trusses for disabled soldiers, 1916.

Balance on hand July 1, 1918	$1,463.87
Disbursed during the year	6.00
Carried to surplus fund	1,457.87
Total accounted for	1,463.87

Appliances for disabled soldiers, 1918.

Appropriated by act approved June 12, 1917		$1,000.00
Disbursed during the year		426.34
Balance on hand June 30, 1918:		
In United States Treasury	$400.00	
In hands of disbursing officer	173.66	
		573.66
Total accounted for		1,000.00

Appliances for disabled soldiers, 1917.

Balance on hand July 1, 1917	$525.65
Disbursed during the year	19.75
Balance in United States Treasury June 30, 1918	505.90
Total accounted for	525.65

Appliances for disabled soldiers, 1916.

Balance on hand July 1, 1917	$631.61
Carried to surplus fund	631.61

General summary of all appropriations.

Balances on hand July 1, 1917	$30,817,351.13
Appropriated	101,319,213.24
Accrued to replacing funds, act June 12, 1906 (34 Stats., 256)	295,717.94
Refundments during the year	12,975.84
Transfers between appropriations, debits	57,948.25
Total to be accounted for	132,503,206.40
Disbursed during the year	92,503,925.73
Transfers between appropriations, credits	57,948.25
Transfers to other bureaus	912,500.00
Refundments to other bureaus	355.51
Transferred to American Expeditionary Force in Europe (not to be accounted for to the Surgeon General, U. S.)	10,197,524.79
Carried to surplus fund	40,457.14
Balances on hand June 30, 1918	28,790,494.98
Total accounted for	132,503,206.40

Very respectfully,

W. C. GORGAS,
Major General, Medical Department, U. S. A.,
Surgeon General.

The SECRETARY OF WAR.

APPENDIX.

TABLE No. I.—*Army, total.*

ABSOLUTE NUMBERS.

		Enlisted American troops.												Native troops.			
		White.				Colored.				Total.							
	Officers, total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Philippine Scouts.	Porto Ricans.	Total enlisted.	Total officers and enlisted men.
Mean strength	31,511	259,664	201,549	160,467	621,680	10,087	1,445	6,433	17,965	269,751	202,994	166,900	639,645	5,509	1,914	647,068	678,579
ARMY TOTAL FOR DISEASE AND TRAUMATISM.																	
Readmitted	178	3,818	2,854	1,331	8,003	247	42	68	357	4,065	2,896	1,399	8,360	31	23	8,414	8,592
Remaining at beginning of period	132	2,286	1,867	5	4,158	160	2	1	163	2,446	1,869	6	4,321	51	28	4,400	4,532
Admitted from command	14,380	264,239	217,603	120,668	602,510	12,356	2,351	6,417	21,124	276,595	219,954	127,085	623,634	3,082	1,925	628,641	643,021
Aggregate treated	14,690	270,343	222,324	122,004	614,671	12,763	2,395	6,486	21,644	283,106	224,719	128,490	636,315	3,164	1,976	641,455	656,145
Returned to duty	11,875	225,784	169,926	93,289	488,999	10,135	1,724	3,771	15,630	235,919	171,650	97,060	504,629	2,990	1,915	509,534	521,409
Discharged for disability	73	6,140	8,148	2,711	16,999	286	133	206	625	6,426	8,281	2,917	17,624	28	15	17,667	17,740
In line of duty	37	1,002	463	64	1,529	45	6	2	53	1,047	469	66	1,582	24	11	1,617	1,654
Not in line of duty	36	5,138	7,685	2,647	15,470	241	127	201	572	5,379	7,812	2,851	16,042	4	4	16,050	16,086
Died	107	1,516	1,587	696	3,799	105	23	109	237	1,621	1,610	805	4,036	11	5	4,052	4,159
Otherwise disposed of	1,427	20,345	22,430	10,709	53,484	1,017	244	775	2,036	21,362	22,674	11,481	55,520	65	24	55,609	57,036
Remaining at end of period	1,208	16,558	20,233	11,599	51,390	1,220	271	1,625	3,116	17,778	20,504	16,224	54,506	70	17	54,593	55,801
Treated in quarters, days	36,497	357,338	429,653	186,694	973,685	11,615	4,105	5,917	21,637	368,953	433,758	192,611	995,322	284	418	996,024	1,032,521
Treated in hospital, days	94,930	2,360,266	1,585,880	739,963	4,686,109	117,465	13,181	62,731	193,377	2,477,731	1,599,061	802,694	4,879,486	33,344	14,396	4,927,226	5,022,156
Army, total, days	131,427	2,717,604	2,015,533	926,657	5,659,794	129,080	17,286	68,648	215,014	2,846,684	2,032,819	995,305	5,874,808	33,628	14,814	5,923,250	6,054,677
DISEASE IN THE ARMY.																	
Readmitted	130	2,729	2,253	870	5,852	197	29	50	276	2,926	2,282	920	6,128	25	18	6,171	,301
Remaining at beginning of period	117	2,031	1,689	5	3,725	144	2	1	147	2,175	1,691	6	3,872	44	28	3,944	4,061
Admitted from command	12,782	232,469	199,316	112,650	544,435	10,845	2,193	6,171	19,209	243,314	201,509	118,821	563,644	2,654	1,811	568,109	580,891
Aggregate treated	13,029	237,229	203,258	113,525	554,012	11,186	2,224	6,222	19,632	248,415	205,482	119,747	573,644	2,723	1,857	578,224	591,253
Returned to duty	10,514	196,512	154,276	86,411	437,199	8,740	1,603	3,612	13,955	205,252	155,879	90,023	451,154	2,566	1,803	455,523	466,037

Discharged for disability	68	5,669	7,716	2,515	15,900	262	127	189	578	5,931	7,843	2,704	16,478	26	14	16,518	16,586
In line of duty	33	800	351	50	1,201	33	5	1	39	833	356	51	1,240	22	10	1,272	1,305
Not in line of duty	35	4,869	7,365	2,465	14,690	229	122	188	539	5,098	7,487	2,653	15,238	4	4	15,246	15,281
Died	64	1,064	1,337	656	3,057	80	12	108	200	1,144	1,349	764	3,257	7	2	3,266	3,330
Otherwise disposed of	1,289	18,834	20,852	10,110	49,796	967	225	757	1,949	19,801	21,077	10,867	51,745	61	24	51,830	53,119
Remaining at end of period	1,094	15,150	19,077	13,833	48,060	1,137	257	1,556	2,950	16,287	19,334	15,389	51,010	63	14	51,087	52,181
Treated in quarters, days	29,159	256,754	354,025	158,207	768,986	8,178	3,407	5,270	16,855	264,932	357,432	163,477	785,841	168	324	786,333	815,492
Treated in hospital, days	83,058	2,111,042	1,465,950	701,961	4,278,953	103,055	12,463	60,542	176,060	2,214,097	1,478,413	762,503	4,455,013	29,119	13,527	4,497,659	4,580,717
Total for disease, days	112,217	2,367,796	1,819,975	860,168	5,047,939	111,233	15,870	65,812	192,915	2,479,029	1,835,845	925,980	5,240,854	29,287	13,851	5,283,992	5,396,209
TRAUMATISMS IN THE ARMY.																	
Readmitted	48	1,089	601	461	2,151	50	13	18	81	1,139	614	479	2,232	6	5	2,243	2,291
Remaining at beginning of period	15	255	178		433	16			16	271	178		449	7		456	471
Admitted from command	1,598	31,770	18,287	8,018	58,075	1,511	158	246	1,915	33,281	18,445	8,264	59,990	428	114	60,532	62,130
Aggregate treated	1,661	33,114	19,066	8,479	60,659	1,577	171	264	2,012	34,691	19,237	8,743	62,671	441	119	63,231	64,892
Returned to duty	1,361	29,272	15,650	6,878	51,800	1,395	121	159	1,675	30,667	15,771	7,037	53,475	424	112	54,011	55,372
Discharged for disability	5	471	432	196	1,099	24	6	17	47	495	438	213	1,146	2	1	1,149	1,154
In line of duty	4	202	112	14	328	12	1	1	14	214	113	15	342	2	1	345	349
Not in line of duty	1	269	320	182	771	12	5	16	33	281	325	198	804			804	805
Died	43	452	250	40	742	25	11	1	37	477	261	41	779	4	3	786	829
Otherwise disposed of	138	1,511	1,578	599	3,688	50	19	18	87	1,561	1,597	617	3,775	4		3,779	3,917
Remaining at end of period	114	1,408	1,156	766	3,330	83	14	69	166	1,491	1,170	835	3,496	7	3	3,506	3,620
Treated in quarters, days	7,338	100,584	75,628	28,487	204,699	3,437	698	647	4,782	104,021	76,326	29,134	209,481	116	94	209,691	217,029
Treated in hospital, days	11,872	249,224	119,930	38,002	407,156	14,410	718	2,189	17,317	263,634	120,648	40,191	424,473	4,225	869	429,567	441,439
Total for external causes, days	19,210	349,808	195,558	66,489	611,855	17,847	1,416	2,836	22,099	367,655	196,974	69,325	633,954	4,341	963	639,258	658,468

PROPORTIONATE NUMBERS.

ARMY TOTAL FOR DISEASE AND TRAUMATISM.																	
Readmitted	5.65	14.70	14.16	8.29	12.87	24.49	29.07	10.57	19.87	15.07	14.27	8.38	13.07	5.63	12.02	13.00	12.66
Remaining at beginning of period	4.19	8.80	9.26	.03	6.69	15.86	1.38	.16	9.07	9.07	9.21	.04	6.76	9.26	14.63	6.80	6.68
Admitted from command	456.35	1,017.61	1,079.67	751.98	969.16	1,224.94	1,626.99	997.51	1,175.84	1,025.37	1,083.57	761.44	974.97	559.47	1,005.75	971.52	947.60
Aggregate treated	466.19	1,041.11	1,103.10	760.31	988.73	1,265.29	1,657.41	1,008.24	1,204.79	1,049.51	1,107.05	769.86	994.79	574.33	1,032.39	991.33	966.94
Returned to duty	376.85	869.51	843.12	581.36	786.58	1,004.76	1,193.08	586.20	870.02	874.58	845.59	581.55	788.92	542.75	1,000.52	787.45	768.38
Discharged for disability	2.32	23.65	40.43	16.89	27.31	28.35	92.04	32.02	34.79	23.82	40.79	17.48	27.55	5.08	7.84	27.30	26.14
In line of duty	1.17	3.86	2.30	.40	2.46	4.46	4.15	.31	2.95	3.88	2.31	.40	2.47	4.36	5.75	2.50	2.44
Not in line of duty	1.14	19.79	38.13	16.50	24.88	23.89	87.89	31.71	31.84	19.94	38.48	17.08	25.08	.73	2.09	24.80	23.71
Died	3.40	5.84	7.87	4.34	6.11	10.41	15.92	16.94	13.19	6.01	7.93	4.82	6.31	2.00	2.61	6.26	6.15
Otherwise disposed of	45.29	78.35	111.29	66.74	86.03	109.82	168.86	120.47	113.33	79.19	111.70	68.81	86.80	11.80	12.51	86.94	84.05
Remaining at end of period	38.34	63.77	100.39	90.98	82.66	120.95	187.54	252.60	173.45	65.91	101.01	97.21	85.21	12.71	8.88	84.37	82.23
Treated in quarters, days	3.17	3.77	5.84	3.19	4.29	3.15	7.78	2.52	3.30	3.75	5.85	3.16	4.26	.14	.60	4.22	4.17
Treated in hospital, days	8.25	24.90	21.56	12.63	20.65	31.90	24.99	26.72	29.49	25.16	21.58	13.18	20.90	16.58	20.61	20.86	20.28
Army, total, days	11.43	28.67	27.40	15.82	24.94	35.06	32.77	29.25	32.79	28.91	27.41	16.34	25.16	16.72	21.20	25.08	24.44

TABLE No. I.—*Army, total*—Continued.

PROPORTIONATE NUMBERS—Continued.

	Officers, total.	Enlisted American troops.												Native troops.		Total enlisted.	Total officers and enlisted men.
		White.				Colored.				Total.							
		Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	Philippine Scouts.	Porto Ricans.		
DISEASE IN THE ARMY.																	
Readmitted	4.13	10.51	11.18	5.42	9.41	19.53	20.07	7.77	15.36	10.85	11.21	5.51	9.58	4.54	9.40	9.51	9.29
Remaining at beginning of period	3.71	7.82	8.38	.03	5.99	14.28	1.38	.16	8.18	8.06	8.33	.04	6.05	7.99	14.63	6.10	5.98
Admitted from command	405.61	895.26	988.91	702.01	875.75	1,075.15	1,517.65	959.27	1,069.25	901.99	992.68	711.93	881.18	181.76	916.19	877.97	856.04
Aggregate treated	413.47	913.59	1,008.50	707.47	891.15	1,108.95	1,539.10	967.20	1,092.79	920.90	1,012.26	717.48	896.82	194.28	970.22	893.61	871.31
Returned to duty	333.66	756.78	765.47	538.50	703.23	866.16	1,109.34	561.48	776.79	769.89	767.90	539.38	705.32	165.78	942.01	703.98	686.78
Discharged for disability	2.16	21.83	38.28	15.67	25.58	25.97	87.89	29.38	32.17	21.99	38.61	16.20	25.76	4.72	7.31	25.53	24.44
In line of duty	1.05	3.08	1.74	.31	1.95	3.27	3.46	.16	2.17	3.09	1.75	.31	1.94	3.99	5.22	1.97	1.92
Not in line of duty	1.11	18.75	36.51	15.36	23.63	22.70	84.43	29.22	30.00	18.90	36.88	15.90	23.82	.73	2.09	23.56	22.52
Died	2.03	4.10	6.63	4.09	4.93	7.93	8.30	16.79	11.13	4.21	6.65	4.58	5.09	1.27	1.01	5.07	4.91
Otherwise disposed of	40.91	72.53	103.46	63.00	80.10	95.87	155.71	117.67	108.49	73.40	103.83	65.11	80.90	11.07	12.54	80.10	78.28
Remaining at end of period	31.72	58.34	94.67	86.20	77.31	112.72	177.85	241.88	161.21	60.38	95.24	92.20	79.75	11.44	7.31	78.95	76.90
Treated in quarters, days	2.54	2.71	4.81	2.70	3.39	2.22	6.46	2.24	2.57	2.69	4.82	2.68	3.37	.08	.46	3.33	3.29
Treated in hospital, days	7.22	22.27	19.93	11.98	18.86	27.99	23.63	25.78	26.85	22.49	19.95	12.52	19.08	14.48	19.36	19.01	18.49
Total for disease, days	9.76	24.98	24.74	14.69	22.25	30.21	30.09	28.03	29.42	25.18	24.78	15.20	22.45	14.56	19.83	22.37	21.79
TRAUMATISMS IN THE ARMY.																	
Readmitted	1.52	4.19	2.98	2.87	3.46	4.96	9.00	2.80	4.51	4.22	3.02	2.87	3.49	1.09	2.61	3.47	3.38
Remaining at beginning of period	.48	.98	.88	....	.70	1.59	....	....	.89	1.00	.88	....	.70	1.27	....	.70	.69
Admitted from command	50.71	122.35	90.73	49.97	93.42	149.80	109.34	38.24	106.60	123.38	90.86	49.51	93.79	77.69	59.56	93.55	91.56
Aggregate treated	52.71	127.52	94.60	52.84	97.57	156.31	118.34	41.01	112.00	128.60	94.77	52.38	97.98	80.05	62.17	97.72	95.63
Returned to duty	43.19	112.73	77.65	42.86	83.32	138.39	83.74	24.72	93.24	113.69	77.69	42.16	83.60	76.96	58.52	83.47	81.60
Discharged for disability	.16	1.81	2.14	1.22	1.77	2.38	4.15	2.64	2.62	1.83	2.16	1.28	1.79	.36	.52	1.78	1.70
In line of duty	.13	.78	.56	.09	.53	1.19	.69	.16	.78	.79	.56	.09	.53	.36	.52	.53	.51
Not in line of duty	.03	1.03	1.59	1.13	1.24	1.19	3.46	2.49	1.84	1.04	1.60	1.19	1.26	......	....	1.24	1.19

Died	1.36	1.74	1.24	.25	1.19	2.48	7.61	.16	2.06	1.77	1.29	.25	1.22	.73	1.57	1.21	1.22
Otherwise disposed of	4.38	5.82	7.83	3.73	5.93	4.96	13.15	2.80	4.84	5.79	7.87	3.70	5.90	.73	....	5.84	5.77
Remaining at end of period	3.62	5.42	5.74	4.77	5.36	8.23	9.69	10.73	9.24	5.53	5.76	5.00	5.47	1.27	1.57	5.42	5.33
Treated in quarters, days	.64	1.06	1.03	.49	.90	.93	1.32	.28	.73	1.06	1.03	.48	.90	.06	.13	.89	.88
Treated in hospital, days	1.03	2.63	1.63	.65	1.79	3.91	1.36	.93	2.64	2.68	1.63	.66	1.82	2.10	1.24	1.82	1.78
Total for external causes, days	1.67	3.69	2.66	1.14	2.70	4.85	2.68	1.21	3.37	3.73	2.66	1.14	2.72	2.16	1.38	2.71	2.66

TABLE No. II.—*Comparative figures, enlisted American troops, Army, 1912–1917.*

ABSOLUTE NUMBERS.

Army.	Mean strength.	Admissions to sick report		Discharges on certificate of disability.		Deaths.		Total losses.		Total days.				Constantly noneffective.			
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
										Total.	In hospital.	Total.	In hospital.	Total.	In hospital.	Total.	In hospital.
1917	639,645	623,634	480,789	17,624	15,551	4,036	3,194	21,660	18,748	5,874,808	4,879,486	4,318,950	3,677,168	16,095.36	13,368.45	11,832.73	10,074.43
1916	99,186	74,150	49,430	1,639	1,258	517	243	2,156	1,501	1,015,840	894,914	635,605	....	2,775.52	2,445.12	1,736.63	....
1915	93,262	69,442	45,210	1,351	1,110	436	234	1,787	1,344	880,823	763,983	555,840	193,402	2,413.21	2,093.10	1,522.77	1,351.79
1914	87,228	58,079	35,592	1,145	921	392	195	1,537	1,116	764,883	684,082	467,890	428,246	2,095.57	1,874.20	1,281.89	1,173.28
1913	80,766	54,257	33,459	1,082	865	397	202	1,479	1,067	717,149	659,086	447,061	429,217	1,954.79	1,895.72	1,224.82	1,151.28
1912	78,267	64,487	39,952	1,069	844	381	169	1,450	1,013	862,221	790,213	491,236	459,521	2,355.80	2,159.05	1,350.37	1,255.52

TABLE NO. II.—*Comparative figures, enlisted American troops, Army, 1912–1917—Continued.*

PROPORTIONATE NUMBERS.

Army.	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.	
		From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.	Excluding injuries, venereal diseases, alcoholism, and vaccinia.	From all causes.		Excluding injuries, venereal diseases, alcoholism, and vaccinia.		For each soldier.	For each case.	For each soldier.	For each case.
										Total.	In hospital.	Total.	In hospital.				
1917......	639,645	974.97	751.65	27.55	24.31	6.31	4.99	33.85	29.31	25.16	20.90	18.50	15.75	9.18	9.43	6.75	8.98
1916......	99,186	747.59	498.37	16.52	12.68	5.21	2.45	21.73	15.13	27.98	24.65	1,736.63	....	10.24	13.70	6.41	12.86
1915......	93,262	744.59	484.76	14.26	11.72	4.60	2.47	18.86	14.19	25.88	22.44	16.33	14.49	9.44	12.68	5.96	12.29
1914......	87,228	665.83	407.00	12.99	10.45	4.45	2.21	17.44	12.66	24.02	21.49	14.70	13.45	8.77	13.17	5.36	13.18
1913......	80,766	671.78	414.27	13.24	10.59	4.86	2.47	18.10	13.06	24.33	22.36	15.17	14.26	8.88	13.22	5.53	13.36
1912......	78,267	823.94	510.46	13.43	10.60	4.79	2.12	18.22	12.72	30.10	27.58	17.25	16.04	11.02	13.37	6.31	12.37

Table No. III.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1917, compared with the corresponding data for the year 1916, by races.*

ABSOLUTE NUMBERS.

		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
White troops	1917	621,680	602,510	544,435	58,075	16,999	15,900	1,099	3,799	3,057	742	20,798	18,957	1,841	5,659,794	15,506.28
	1916	93,625	70,180	58,245	11,935	1,516	1,324	192	474	240	234	1,990	1,564	426	950,643	2,597.39
Colored troops	1917	17,965	21,124	19,209	1,915	625	578	47	237	200	37	862	778	84	215,014	589.08
	1916	5,561	3,970	3,173	797	123	106	17	43	19	24	166	125	41	65,197	178.13
Porto Rican troops	1917	1,914	1,925	1,811	114	15	14	1	5	2	3	20	16	4	14,814	40.58
	1916	955	991	912	79	12	12	....	4	3	1	16	15	1	8,862	24.21
Philippine scouts	1917	5,509	3,082	2,654	428	28	26	2	11	7	4	84	75	9	33,628	92.13
	1916	5,579	2,690	2,271	419	39	36	3	15	13	2	54	49	5	29,767	81.33

PROPORTIONATE NUMBERS.

(Ratios per 1,000 of mean strength.)

		Mean strength.	Admitted.			Discharged on certificate of disability.			Died.			Total losses.			Constantly noneffective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
White troops	1917	621,680	969.16	875.75	93.41	27.34	25.58	1.77	6.11	4.92	1.19	33.45	30.49	2.96	24.94	9.10	9.39
	1916	93,625	749.59	622.11	127.48	16.19	14.14	2.05	5.06	2.56	2.50	21.25	16.70	4.55	27.74	10.15	13.54
Colored troops	1917	17,965	1,175.84	1,069.25	106.60	34.79	32.17	2.62	13.19	11.13	2.06	47.98	43.30	4.68	32.79	11.97	10.18
	1916	5,561	713.90	570.58	143.32	22.12	19.06	3.06	7.73	3.42	4.32	29.85	22.48	7.38	32.03	11.72	16.42
Porto Rican troops	1917	1,914	1,005.75	946.19	59.56	7.84	7.31	.52	2.61	1.04	1.57	10.45	8.36	2.09	21.20	7.74	7.70
	1916	955	1,037.70	954.97	82.72	12.57	12.57	....	4.19	3.14	1.05	16.76	15.71	1.05	25.35	9.28	8.94
Philippine Scouts	1917	5,509	559.45	481.76	77.69	5.08	4.72	.36	2.00	1.27	.73	15.25	13.61	1.63	16.72	6.10	10.91
	1916	5,579	482.17	407.06	75.10	6.99	6.45	.54	2.69	2.33	.36	9.68	8.78	.90	14.58	5.34	11.06

TABLE No. IV.—*Admissions, discharges, deaths, days lost in hospital, total days lost from disease, 1917. American troops at home and abroad, by arm of service.*

ABSOLUTE NUMBERS.

	Aviation.	Infantry.	Cavalry.	Field Artillery.	Coast Artillery.	Engineers.	Medical Department.	Quartermaster.	Ordnance.	Signal Corps.	Others.	Total.
Admissions	12,762	304,305	28,944	68,833	26,214	33,034	31,670	18,034	10,028	11,201	18,619	563,644
Discharges	123	9,626	717	1,902	666	897	959	353	424	199	612	16,478
Deaths	37	1,972	106	315	91	195	125	123	69	27	197	3,257
Days in hospital	78,443	2,400,526	284,596	484,226	248,835	248,099	253,172	160,606	66,620	74,237	155,653	4,455,013
Total days	93,199	2,865,919	320,157	593,246	279,706	290,264	282,645	176,890	79,975	87,285	171,568	5,240,854

PROPORTIONATE NUMBERS.

(Ratio per 1,000 mean strength.)

	Aviation.	Infantry.	Cavalry.	Field Artillery.	Coast Artillery.	Engineers.	Medical Department.	Quartermaster.	Ordnance.	Signal Corps.	Others.	Total.
Admissions	(1)	975.92	789.48	878.51	639.40	865.06	927.08	(1)	2,460.25	706.60	621.22	881.18
Discharges	(1)	30.87	19.56	24.27	16.24	23.49	28.07	(1)	104.02	12.55	13.68	25.76
Deaths	(1)	6.32	2.89	4.02	2.22	5.11	3.66	(1)	16.93	1.70	4.49	5.09
Days in hospital	(1)	21.09	21.27	16.93	16.63	17.80	20.31	(1)	44.78	12.83	5.36	19.08
Total days	(1)	25.18	23.93	20.75	18.69	20.83	22.67	(1)	53.76	15.09	5.91	22.45

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[1] Included in others.

TABLE NO. V.—*Admissions from disease, enlisted men in the United States, by months and by State of occurrence, 1917.*

ABSOLUTE NUMBERS.

State of occurrence.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Alabama	53	63	177	374	357	483	420	757	1,428	2,852	2,843	3,089	12,896
Alaska	23	9	15	12	15	11	23	18	16	41	22	19	224
Arizona	1,663	1,549	965	844	1,074	763	630	563	506	501	499	577	10,134
Arkansas	36	51	30	55	62	32	79	133	612	3,045	4,632	5,760	14,527
California	502	476	593	899	1,245	1,324	1,198	1,699	1,708	2,705	4,997	5,409	22,755
Colorado	172	158	135	128	150	142	192	413	349	91	48	157	2,135
Connecticut	7	12	5	187	248	142	126	213	174	64	7	4	1,189
Delaware	34	23	40	17	91	50	28	72	52	36	15	28	486
District of Columbia	72	53	36	62	99	242	224	226	204	404	473	924	3,019
Florida	63	85	71	68	173	142	98	193	125	99	98	497	1,712
Georgia	81	85	244	468	904	1,576	2,455	2,826	5,255	7,805	11,346	12,754	45,799
Idaho	164	......	1	21	35	30	38	166	88	4	1	4	552
Illinois	71	86	69	270	149	279	284	657	829	1,512	1,187	1,748	7,141
Indiana	13	7	17	40	81	411	479	854	705	765	413	365	4,150
Iowa	27	11	29	24	69	35	176	453	1,440	2,160	2,572	2,670	9,666
Kansas	102	95	131	187	341	484	565	782	1,981	5,381	8,642	8,954	27,645
Kentucky	32	88	104	316	342	391	716	723	1,132	2,364	2,820	3,714	12,742
Louisiana	82	85	27	76	169	111	124	133	224	602	3,508	3,776	8,917
Maine	95	90	72	122	303	181	179	143	98	85	131	191	1,693
Maryland	74	55	67	98	159	110	111	198	576	1,560	2,205	3,336	8,549
Massachusetts	187	116	118	400	487	249	454	1,457	1,617	1,683	1,766	2,864	11,398
Michigan	52	29	35	80	99	130	138	462	912	1,509	1,338	1,645	6,399
Minnesota	30	23	16	101	99	163	482	621	441	411	318	373	3,078
Mississippi	10	5	13	28	65	51	69	130	737	2,339	3,892	3,015	10,354
Missouri	256	222	251	248	268	357	401	413	322	212	312	1,114	4,376
Montana	4	17	8	66	118	101	90	105	92	82	151	68	902
Nebraska	19	50	29	40	100	55	71	111	190	128	303	327	1,423
Nevada	......	......	......	13	6	12	7	2	16	2	3	4	65
New Hampshire	16	10	10	16	31	23	67	62	27	16	30	51	359
New Jersey	85	48	62	371	271	287	417	777	1,114	2,328	2,198	3,815	11,773
New Mexico	615	445	169	139	188	271	312	348	777	1,926	4,391	4,478	14,059
New York	455	488	602	866	1,292	1,754	2,159	2,846	3,946	5,276	4,792	4,887	29,363
North Carolina	18	21	50	71	72	71	192	69	343	1,157	1,819	4,082	7,965
North Dakota	2	1	......	3	2	2	1	7	7	2	3	4	34
Ohio	231	208	113	122	191	191	334	696	1,331	2,869	3,315	3,636	13,237
Oklahoma	57	30	28	163	202	219	261	288	353	180	318	398	2,497
Oregon	23	11	10	25	52	77	68	284	214	237	134	161	1,296
Pennsylvania	10	46	22	97	116	462	894	1,182	562	602	345	458	4,796
Rhode Island	84	59	60	86	181	120	123	257	54	77	69	214	1,384
South Carolina	88	35	57	106	106	123	134	381	2,322	3,829	8,827	5,510	21,518
South Dakota	5	2	4	14	12	17	11	8	14	3	2	3	95
Tennessee	9	9	26	18	193	93	161	177	24	10	11	93	824

TABLE No. V.—*Admissions from disease, enlisted men in the United States, by months and by State of occurrence, 1917*—Continued.

State of occurrence.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Texas	9,246	6,977	4,541	4,004	5,391	4,198	3,438	3,965	7,829	11,621	19,414	21,457	102,081
Utah	9	6	11	18	120	410	406	477	458	728	306	209	3,158
Vermont	71	33	26	54	465	424	271	348	522	483	148	94	2,939
Virginia	211	158	172	279	501	428	483	700	1,399	1,958	3,145	5,188	14,622
Washington	191	149	170	314	355	465	556	797	1,976	5,010	4,293	5,656	19,932
West Virginia	1	5	8	43	27	5	18	7	1	1	13	23	152
Wisconsin	6	1	1	44	26	50	332	776	421	116	89	103	1,965
Wyoming	17	19	44	29	70	529	646	851	674	567	354	212	4,012
Others	13	19	23	39	62	125	119	158	562	888	556	880	3,444
Total	15,387	12,323	9,507	12,165	17,234	18,401	21,260	29,984	46,759	78,326	109,114	124,971	495,431

TABLE No. VI.—*Admissions from disease, enlisted men in the United States, by months and by State of occurrence, 1917.*

PROPORTIONATE NUMBERS.

[Ratio per 1,000 mean strength.]

State of occurrence.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Alabama	646.34	851.35	517.54	1,147.24	1,050.00	1,092.75	803.06	993.44	346.85	663.10	768.17	830.60	688.52
Alaska	442.31	160.71	272.73	222.22	283.02	189.65	418.18	310.34	280.70	773.58	360.65	316.67	331.85
Arizona	1,797.83	1,406.88	1,309.36	964.57	1,130.52	1,086.89	844.50	786.31	727.01	761.40	763.00	765.25	1,065.17
Arkansas	....	1,040.82	410.96	544.55	225.45	114.70	196.03	476.70	290.60	1,315.33	1,992.25	2,253.52	1,348.96
California	886.93	903.23	1,034.90	866.92	812.65	749.71	678.37	680.96	166.91	774.85	1,189.19	1,228.48	698.18
Colorado	2,388.88	2,393.95	564.85	377.58	379.75	347.19	301.41	548.47	626.57	450.49	424.78	590.22	527.29
Connecticut[1]	....	....	....	....	....	....	....	....	....	....	....	....	....
Delaware	918.92	255.56	1,000.00	269.84	883.49	543.48	169.70	378.95	270.83	413.79	178.57	350.00	397.38
District of Columbia	1,756.10	1,127.66	409.09	539.13	712.23	899.63	516.13	518.35	860.76	1,038.56	1,048.78	185.88	396.30
Florida	807.69	1,075.95	282.87	295.65	670.54	533.83	396.76	686.83	919.11	722 63	593.94	268.36	430.04
Georgia	826.53	1,349.21	945.73	1,292.82	811.49	1,012.20	1,106.35	948.32	915.03	1,021.06	1,295.05	1,440.80	1,154.99
Idaho[1]	....	....	....	....	....	....	....	....	....	....	....	....	1,512.33
Illinois	236.67	221.65	149.67	849.06	600.81	670.67	276.80	461.05	595.55	592.01	543.25	831.58	557.24
Indiana	333.33	50.36	97.70	563.38	490.91	815.47	518.40	654.91	647.38	691.68	709.62	1,346.86	651.70
Iowa	194.24	72.85	223.08	187.50	492.86	225.81	421.05	877.91	1,046.51	1,131.48	1,394.79	1,826.26	1,154.98
Kansas	610.78	833.33	1,247.61	1,375.00	736.50	620.51	401.85	713.50	1,065.62	1,411.22	2,995.49	2,974.75	1,745.71
Kentucky	....	1,375.00	1,061.22	1,362.06	732.33	1,026.25	1,700.71	1,964.67	860.17	1,192.13	1,407.18	1,795.93	1,354.67
Louisiana	3,153.84	1,440.67	964.28	262.98	744.49	447.58	604.87	410.49	445.33	954.04	2,354.36	2,100.11	1,529.76

Maine	848.21	825.69	1,263.16	910.44	823.37	523.12	337.73	334.11	550.56	508.98	748.56	989.79	604.86
Maryland	1,104.48	447.15	1,340.00	351.25	514.56	454.54	368.77	334.46	1,156.63	1,058.34	816.06	1,080.31	879.07
Massachusetts	1,364.96	865.67	323.29	936.77	970.12	329.36	250.83	574.75	533.84	572.64	644.52	1,054.10	630.04
Michigan	281.08	97.32	100.86	640.00	687.50	543.93	305.31	479.75	871.89	969.79	846.30	832.90	721.10
Minnesota	160.43	131.43	148.15	469.76	264.00	268.98	601.00	740.17	613.35	985.61	935.29	1,759.43	615.97
Mississippi	....	....	134.02	571.43	866.67	398.44	575.00	237.66	451.87	1,051.70	1,673.25	1,297.88	1,087.38
Missouri	1,802.81	1,563.37	947.17	708.57	613.27	847.98	866.09	361.01	682.20	1,019.23	1,106.38	1,643.06	874.68
Montana	....	....	....	385.96	631.02	478.67	384.62	593.22	718.75	500.00	3,282.60	1,478.26	655.05
Nebraska	351.85	746.26	353.66	366.97	632.91	269.61	258.18	660.71	1,711.71	659.79	1,241.80	1,224.72	735.78
Nevada[1]	....	....	....	....	....	....	....	....	....	....	....	....	928.57
New Hampshire	1,454.54	909.09	344.83	888.89	402.60	323.94	325.24	826.67	771.43	390.24	750.00	1,020.00	539.85
New Jersey	1,416.67	786.88	385.09	804.77	523.16	484.80	323.51	451.48	648.43	682.69	823.53	1,206.13	744.09
New Mexico	1,413.79	615.49	329.43	290.79	401.71	422.12	482.97	432.30	555.79	868.74	1,628.71	1,553.78	1,011.29
New York	873.32	879.28	594.27	622.57	584.87	639.91	435.72	429.13	375.45	686.71	618.24	700.04	554.63
North Carolina	100.00	207.92	543.48	797.75	642.86	601.69	1,511.81	873.42	572.62	640.64	554.40	1,323.60	838.16
North Dakota[1]	....	....	....	....	....	....	....	....	....	....	....	....	....
Ohio	2,026.31	1,719.01	604.28	420.69	486.93	375.24	435.46	636.20	869.93	990.68	1,126.78	1,074.47	305.45
Oklahoma	1,357.14	149.25	378.38	721.23	765.15	699.68	621.43	793.39	309.65	72.06	150.00	161.46	246.59
Oregon	920.00	458.33	434.79	500.00	305.88	432.58	255.64	800.00	823.08	2,468.75	1,505.62	1,610.00	791.69
Pennsylvania	91.74	277.11	301.37	347.67	231.07	247.19	252.97	317.31	253.27	242.16	238.59	562.65	278.50
Rhode Island	1,150.68	819.44	833.33	781.82	1,283.68	736.19	196.17	667.53	355.26	478.26	431.25	1,156.75	601.48
South Carolina	2,588.23	853.66	487.18	731.03	605.71	627.55	687.18	3,201.68	564.55	577.97	1,281.13	756.76	829.82
South Dakota[1]	....	....	....	....	....	....	....	....	....	....	....	....	552.33
Tennessee	....	900.00	201.55	153.85	1,398.55	543.86	570.92	863.41	....	....	647.06	1,430.77	724.71
Texas	1,180.38	1,062.43	1,213.84	1,052.85	1,321.65	1,033.99	762.98	803.44	779.94	988.34	1,441.80	1,423.25	1,135.99
Utah	....	....	....	....	1,276.59	1,464.28	1,017.54	753.55	691.84	1,562.23	1,264.46	867.22	1,028.66
Vermont	1,339.62	634.61	509.80	210.12	1,226.91	809.16	321.47	553.26	1,352.33	1,213.57	880.95	803.42	761.79
Virginia	890.29	632.00	410.50	578.84	632.57	589.53	554.53	646.35	622.60	546.32	758.19	1,237.30	768.28
Washington	1,130.18	784.21	578.23	253.02	816.09	626.68	707.22	737.96	890.08	1,362.89	1,237.17	1,483.73	1,100.06
West Virginia	....	....	94.12	330.77	355.26	108.69	346.15	241.38	....	....	....	....	363.64
Wisconsin	....	....	....	785.71	162.50	282.49	410.38	596.46	215.57	358.02	689.92	3,678.56	397.93
Wyoming	....	....	....	....	744.68	1,306.17	1,448.43	1,555.76	1,719.39	1,610.79	1,361.53	1,054.72	1,446.29
Others[1]	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	1,153.18	922.78	777.85	741.41	828.08	705.34	549.48	530.96	577.09	859.54	1,160.03	1,201.48	886.81

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[1] Due to small number of troops in these states, ratios are not significant.

TABLE NO. VII.—*Discharges from disease, United States enlisted men, by months and by State of occurrence, 1917.*

ABSOLUTE NUMBERS.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Ratio of total per 1,000 mean strength.
Alabama		1			1	4	2		26	49	116	114	313	16.71
Alaska	2	1	1		1				2	1	1	1	10	14.81
Arizona	18	8	16	18	17	21	26	30	37	18	10	6	225	23.65
Arkansas	6		1	4	2	1	1	2	18	122	141	127	425	39.47
California	26	14	17	35	55	51	52	86	96	187	495	644	1,758	53.94
Colorado	4	9	2	3	6	4	5	9	8	3	1	4	58	14.32
Connecticut	1	1		54	56	3	9	6	98	57	1	1	287	1,221.28
Delaware		1	2	1	1				3	1	2	1	12	9.81
District of Columbia	5	3	1		4	11	9	8	14	31	19	5	110	14.44
Florida		3	1	2	3	2	3	1	1	1		1	18	4.52
Georgia	1	1	11	4	12	32	55	87	137	222	319	810	1,691	42.64
Idaho				1	1		1	1	3				7	19.18
Illinois	1		2	28		3	8	20	46	56	46	29	239	18.65
Indiana		1	1		1	9	13	33	75	30	12	1	176	27.64
Iowa	1	1	1				6	5	28	76	30	20	168	20.07
Kansas	1	1	4	1	7	16	33	39	49	65	177	166	559	35.30
Kentucky	1		3	5	4	13	20	19	76	219	104	129	593	63.04
Louisiana	1	1					1	2	1	1	2	16	25	4.29
Maine	1		2	2	2	3	9		2	2	1	1	25	8.93
Maryland	1			1	4	2	2	2	5	22	9	12	60	6.17
Massachusetts	3	3	3	3	1	3	18	8	182	92	60	165	541	29.90
Michigan				1		6	3	11	12	24	24	88	169	19.04
Minnesota		2			1		4	13	19	15	15	9	78	15.61
Mississippi			1		1				6	45	19	11	83	8.72
Missouri	4	3	8	2	7	11	14	15	22	13	9	1	109	21.79
Montana			1	3	1						1	2	8	5.81
Nebraska				1		2		1	4	8	10	6	32	16.55
Nevada				1			1						2	28.57
New Hampshire			1		1		8	1	1	1		4	17	25.56
New Jersey	2	1	1	7	7	18	13	68	68	55	59	25	324	20.48
New Mexico	14	6	7	4	7	17	15	24	46	172	230	74	616	44.31
New York	12	7	15	29	18	55	231	131	187	265	113	105	1,168	22.06
North Carolina				1	2	1	5		14	148	106	64	341	35.88
Ohio	2	3		5	2	7	7	14	11	31	32	79	193	13.57
Oklahoma	2			3	2	1	3	7	13	4	3	6	44	4.35
Oregon	1		1	1		1	1	3	1	3			12	7.33
Pennsylvania			1		3	3	24	35	28	24	5	6	129	7.49
Rhode Island	3	1	1	2		3	4	12	2	2	2	4	36	15.65
South Carolina	5			3	1	4	6	13	37	93	304	361	827	31.89

Tennessee				1	1			1	3		1		7	6.16
Texas	150	87	76	52	168	67	85	151	291	491	646	542	2,806	31.23
Utah	1					1	2	7	4	37	3		55	17.92
Vermont					1	8	12	20	5	8	2	1	57	14.77
Virginia	2	1		11	8	10	8	17	36	62	118	89	362	19.02
Washington	2	1	2	44	12	10	28	14	40	174	108	53	488	26.93
West Virginia				5			2					1	8	19.14
Wisconsin					1			10	21	20	4		56	11.34
Wyoming				1	2	10	21	18	78	13	2	1	146	52.63
Others	2		1	2	2	2	3	7	5	14	22	20	80	135.14
Total	275	161	184	311	426	415	773	951	1,861	2,977	3,384	3,805	[1] 15,553	27.84
Ratio per 1,000 mean strength	1.72	1.00	1.25	1.73	1.71	1.33	1.66	1.67	1.91	2.72	3.00	3.05		

[1] 239 discharges of remaining 1916 cases to be added, making total discharges 15,882 and total ratio 28.43.

TABLE No. VIII.—*Deaths from disease, United States enlisted men, by months and State of occurrence, 1917.*

ABSOLUTE NUMBERS.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Ratio of total per 1,000 mean strength.
Alabama	1	1	4		2			2		4	9	8	31	1.65
Alaska			1		1								2	2.96
Arizona	11	23	6	8	7	5	3		2		2	5	72	7.57
Arkansas	1					1			3	32	88	86	211	19.59
California	6	3	5	10	8	16	5	7	2	14	17	31	124	3.80
Colorado	1		7	1	2			1	1				13	3.21
Connecticut				1			2		1				4	17.02
Delaware	1				3				1				5	4.09
District of Columbia					1	1				3	4	10	19	2.49
Florida					1							1	2	.50
Georgia			1	4	3	7	6	8	10	44	159	75	317	7.99
Idaho	3												3	8.22
Illinois				2	2				5	3	5	3	20	1.56
Indiana				1			2	2	1			1	7	1.10
Iowa					1				3	6	7	6	23	2.75
Kansas		3				2	3	5	3	24	134	61	235	14.84
Kentucky				11	3	2	2		2	8	11	16	55	5.85
Louisiana					1				2	1	80	48	132	22.65
Maine		1		1	3	2		2		1			10	3.57
Maryland					2					6	7	8	23	2.36

TABLE No. VIII.—*Deaths from disease, United States enlisted men, by months and State of occurrence, 1917*—Continued.

ABSOLUTE NUMBERS.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Ratio of total per 1,000 mean strength.
Massachusetts	1		1	2	5	1		1	8	6	4	3	32	1.77
Michigan							1	2	4		2	2	11	1.24
Minnesota							1	2		1			4	.80
Mississippi									4	9	30	24	67	7.04
Missouri	7	13	12	12	1			1	2			4	52	10.39
Montana				1						1		2	4	2.90
Nebraska					1			1					2	1.03
New Jersey	1				4	2	2		5	6	7	18	45	2.84
New Mexico	6	2	1	2	2	5	2	2	5	3	30	33	93	6.69
New York	4	3	9	8		9	5	10	29	10	13	8	108	2.04
North Carolina				1					1	4	4	11	21	2.21
Ohio	10	19	7	2	9		1	3	1	9	9	14	84	5.90
Oklahoma		1		1	1	1		1			3	2	10	.99
Oregon							3			1			4	2.44
Pennsylvania		1	1	1	1	3	1	3		1	1		13	.75
Rhode Island					1			2					3	1.30
South Carolina			2	1	1	1			1	24	145	75	250	9.64
South Dakota							1						1	5.81
Tennessee							1						1	.88
Texas	47	73	41	28	35	14	8	9		17	241	128	641	7.13
Utah					1	3	3	1		4			12	3.91
Vermont					3	2	1	1			1		8	2.07
Virginia	1	1		1					1	12	32	48	96	5.04
Washington			1	1	3	1	4	1		12	12	8	43	2.37
West Virginia				1									1	2.39
Wyoming				1	1	5	3			5			15	5.41
Others		1			1			1		2	2	4	11	18.58
Total	101	145	99	102	110	83	60	68	97	273	1,059	743	[1] 2,940	5.26
Ratio per 1,000 mean strength	0.63	0.90	0.67	0.52	0.44	0.27	0.13	0.12	1.00	0.25	0.94	0.60		

[1] 44 deaths of cases remaining from 1916 to be added, making total deaths 2,984 and total ratio 5.34.

TABLE NO. IX.—*Days lost in hospital and total days lost (noneffective) from disease and from traumatism, by countries, enlisted men, for the year 1917, with ratios per 1,000 mean strength.*

	United States.	Europe.	Mexico.	China transports and others.	Philippine Islands.	Hawaii.	Panama.	Porto Rico.	Philippine Scouts.
Days lost in hospital (for disease):									
Number	3,819,325	261,636	6,733	93,844	126,658	89,625	56,952	13,527	29,119
Ratio	18.73	15.70	22.36	62.77	31.90	21.57	19.24	19.36	14.48
Total days lost (for disease):									
Number	4,528,612	302,120	7,564	108,937	129,008	94,481	70,132	13,851	29,287
Ratio	22.21	18.13	25.12	72.85	32.49	22.68	23.69	19.83	14.56
Days lost in hospital (for traumatism):									
Number	350,023	32,386	481	4,227	15,864	15,237	6,255	869	4,225
Ratio	1.72	1.94	1.60	2.83	4.00	3.66	2.11	1.24	2.10
Total days lost (for traumatism):									
Number	536,643	40,339	595	7,602	17,401	19,086	12,288	963	4,341
Ratio	2.63	2.42	1.97	5.08	4.38	4.58	4.15	1.38	2.16

TABLE NO. X.—*Admissions, discharges, deaths, and total days lost from disease, 1917, enlisted men in United States, by nativity.*

States.	Admissions.	Discharges.	Deaths.	Total days lost.
Alabama	17,000	267	181	166,811
Alaska	54	1	....	490
Arizona	744	47	4	6,930
Arkansas	10,269	198	130	100,399
California	11,143	484	49	102,377
Colorado	3,368	189	6	29,547
Connecticut	3,881	250	14	30,654
Delaware	869	21	2	6,331
District of Columbia	1,002	30	1	9,240
Florida	5,466	49	79	53,554
Georgia	18,891	464	167	177,245
Idaho	1,125	31	3	9,816
Illinois	26,623	1,268	98	243,011
Indiana	16,482	450	72	157,631
Iowa	13,643	413	59	115,976
Kansas	11,643	264	65	103,361
Kentucky	17,170	502	114	175,936
Louisiana	7,562	203	115	75,312
Maine	2,958	179	15	25,042
Maryland	4,635	122	24	41,068
Massachusetts	11,003	396	29	87,744
Michigan	13,250	353	45	123,843
Minnesota	9,122	251	42	79,231
Mississippi	11,081	193	131	107,335
Missouri	21,268	650	187	202,780
Montana	1,632	32	8	15,155
Nebraska	7,942	231	47	71,699
Nevada	234	7	1	2,204
New Hampshire	1,476	112	11	12,198
New Jersey	8,691	328	24	68,566
New Mexico	1,317	92	6	14,461
New York	30,915	1,643	113	285,401
North Carolina	11,196	276	120	113,344
North Dakota	1,371	37	6	12,143
Ohio	19,462	455	78	160,542
Oklahoma	5,793	115	31	47,297
Oregon	3,208	106	16	31,181
Pennsylvania	29,422	1,266	89	247,653
Rhode Island	1,510	50	5	11,666
South Carolina	6,991	153	64	69,301
South Dakota	2,508	59	13	20,236
Tennessee	15,118	326	157	151,688
Texas	33,223	618	304	265,205
Utah	1,584	59	4	14,278

TABLE NO. X.—*Admissions, discharges, deaths, and total days lost from disease, 1917, enlisted men in United States, by nativity.*—Continued.

States.	Admissions.	Discharges.	Deaths.	Total days lost.
Vermont	1,340	47	11	12,077
Virginia	10,588	238	60	100,673
Washington	3,137	92	13	28,913
West Virginia	4,843	89	17	46,956
Wisconsin	10,683	322	31	110,076
Wyoming	490	19	2	4,666
Others	40,505	1,835	121	379,369
Total	495,431	15,882	2,984	4,528,612

TABLE NO. XI.—*Admissions, discharges, deaths, and total days lost from disease, 1917, enlisted men in Europe, by nativity.*

States.	Admissions.	Discharges.	Deaths.	Total days lost.
Alabama	686	....	4	7,590
Alaska	2	....	....	25
Arizona	16	....	....	180
Arkansas	144	....	....	1,641
California	286	1	4	3,379
Colorado	58	....	....	1,441
Connecticut	424	....	2	4,069
Delaware	13	....	....	106
District of Columbia	48	....	....	410
Florida	193	....	....	1,770
Georgia	770	....	7	7,029
Idaho	37	....	....	253
Illinois	917	2	3	9,554
Indiana	588	1	4	6,309
Iowa	318	....	3	3,263
Kansas	222	....	....	2,306
Kentucky	296	1	3	3,810
Louisiana	226	....	3	1,994
Maine	403	....	6	4,280
Maryland	253	....	....	2,615
Massachusetts	2,095	....	9	19,818
Michigan	495	....	2	6,194
Minnesota	258	....	2	2,653
Mississippi	295	....	2	2,715
Missouri	409	2	4	4,866
Montana	31	....	....	396
Nebraska	109	....	1	1,447
Nevada	9	....	....	96
New Hampshire	279	....	....	3,148
New Jersey	417	....	1	3,765
New Mexico	27	....	....	495
New York	1,491	1	4	16,263
North Carolina	265	1	1	2,755
North Dakota	38	....	....	677
Ohio	734	2	6	9,237
Oklahoma	82	....	1	1,263
Oregon	107	....	....	1,048
Pennsylvania	1,465	6	5	14,767
Rhode Island	221	1	1	2,028
South Carolina	413	1	2	3,474
South Dakota	41	....	....	382
Tennessee	276	....	1	3,417
Texas	499	1	....	6,102
Utah	35	....	....	312
Vermont	247	....	4	2,778
Virginia	246	....	....	2,413
Washington	110	....	1	954
West Virginia	118	....	....	1,535
Wisconsin	230	....	4	3,073
Wyoming	8	....	....	120
Others	17,022	54	47	121,905
Total	33,972	74	137	302,120

TABLE NO. XII.—*Admissions, discharges, deaths, and total days lost from disease, 1917, enlisted men, American troops in Mexico, Philippine Islands, Hawaii, Panama, China, transports, others, by nativity.*

States.	Admissions.	Discharges.	Deaths.	Total days lost.
Alabama	682	7	....	8,057
Alaska	3	....	....	14
Arizona	54	2	....	2,203
Arkansas	416	6	2	5,500
California	964	10	2	11,979
Colorado	246	6	1	2,644
Connecticut	289	2	1	3,089
Delaware	50	....	1	660
District of Columbia	88	1	1	946
Florida	193	1	....	2,342
Georgia	1,696	10	15	13,019
Idaho	67	1	1	973
Illinois	1,592	36	7	19,807
Indiana	1,060	16	....	12,803
Iowa	779	12	4	10,212
Kansas	629	10	2	8,021
Kentucky	1,460	19	4	18,481
Louisiana	364	5	3	4,109
Maine	263	1	1	2,712
Maryland	295	3	2	3,390
Massachusetts	1,210	11	2	12,940
Michigan	592	8	4	8,066
Minnesota	332	4	3	4,138
Mississippi	408	8	6	5,681
Missouri	1,150	12	7	14,483
Montana	125	3	....	1,433
Nebraska	367	8	1	5,021
Nevada	22	....	....	228
New Hampshire	130	....	2	1,466
New Jersey	686	21	3	6,670
New Mexico	22	2	....	278
New York	2,803	41	10	33,527
North Carolina	1,060	14	....	12,416
North Dakota	74	2	....	585
Ohio	1,088	25	2	12,664
Oklahoma	302	2	....	3,578
Oregon	308	5	2	3,889
Pennsylvania	2,637	45	7	29,322
Rhode Island	168	2	1	2,087
South Carolina	570	5	4	7,319
South Dakota	71	1	....	679
Tennessee	934	20	1	12,607
Texas	1,021	11	7	12,871
Utah	100	3	....	2,494
Vermont	113	2	1	970
Virginia	987	12	2	10,759
Washington	295	2	1	3,233
West Virginia	989	2	2	9,153
Wisconsin	470	4	1	5,540
Wyoming	774	1	....	5,398
Others	4,708	98	20	49,666
Total	35,106	522	136	410,122

TABLE No. XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917.*

PART 1.—OPERATION FOR DISEASE.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Abdomen, tubercular	2		Laparotomy	2		2				1	1	
Abscess	708		Amputation of lower extremity, all or part.	1				1		1		
			Incision	706	9	129	8	258	302	686	1	19
			Laparotomy, exploratory	1		1				1		
	2	Epididymitis	Orchidectomy	2				2		1		1
	1	Septicaemia	Incision	1			1				1	
Abscess, alveolar	76		do	76		7	1	30	38	75		1
	2	Cellulitis	do	2	1	1				2		
	1	Osteomyelitis	do	1	1							1
Abscess, lung	1		do	1		1				1		
Abscess, perinephritic	12		do	12		11		1		11		1
Abscess, periproctitis	140		do	140	2	60	3	32	43	136		4
	2	Fistula, anal	Fistula, incision	2		1			1	2		
Abscess, peritonsillar	286		Incision	286		5	1	125	155	278		8
	1	Hemorrhage	do	1					1	1		
	1	Otitis media	Paracentesis	1					1	1		
Abscess, perivesical	11		Incision	11				4	7	11		
Abscess, retropharyngeal	2		do	2				1	1	2		
Abscess, tubercular	2		do	2		2				1		1
Actinomycosis	1		do	1		1				1		
Adenitis, tubercular	3		Adenectomy	1		1				1		
			Incision	2		2				1		1
Adenoids	176		Adenoidectomy	176	1	36		84	55	171		5
	5	Otitis media	do	5				3	2	5		
Adhesions	7		Breaking up adhesions	2				1	1	1		1
			Incision	5		3		1	1	4		1
Adhesions, peritoneal	31		Enterostomy	1				1			1	
			Intestinal resection	3	2			1		3		
			Laparotomy	26		19		7		22		4
			Liver, other operations on	1		1				1		
Anaemia, pernicious	1		Transfusion	1				1			1	
Angina, Ludwig's	3		Incision	3		1			2	2	1	
Angioma	5		Excision	5		4		1		5		
Angioma, cavernosum	1		do	1		1				1		
Ankylosis, bony	9		Amputation of upper extremity, all or part.	9	2	5		1	1	9		

Anus, other diseases of	1		Excision	1		1						1
Appendicitis	3,624		Appendicectomy	3,624	30	2,838	9	659	88	2,868	19	737
	1	Abscess	do	1		1				1		
	14	Adhesions	do	14		13		1		14		
	1	Cellulitis	do	1		1				1		
	1	Cholecystitis	do	1		1					1	
	2	Cicatrix, painful	do	2		2				2		
	2	Diverticulitis	do	2		2				2		
	1	Erysipelas	do	1		1				1		
	1	Fistula, fecal	do	1		1				1		
	1	Fistula, others	do	1		1				1		
	1	Fistula, postoperative	do	1		1				1		
	6	Intestinal obstruction	do	6		4		2		4		2
	1	Pachymeningitis, cerebral, suppurative.	do	1		1				1		
	1	Pachymeningitis, cervicalis	do	1		1				1		
	3	Phlebitis	do	3		3				3		
	1	Pneumonia, broncho	do	1		1				1		
	2	Pneumonia, lobar	do	2		2				1	1	
	1	Pneumonia, lobar Pleurisy, suppurative	do	1		1					1	
	1	Pleurisy, serofibrinous	do	1		1				1		
	1	Pyaemia, surgical	do	1		1					1	
	1	Septicaemia, general	do	1		1					1	
	49	Abscess	Appendicectomy with drainage	49		41		8		44	2	3
	1	Abscess, retrocecal	do	1		1				1		
	1	Adhesions, peritoneal Peritonitis, acute diffuse	do	1		1				1		
	1	Cellulitis Peritonitis, acute local	do	1		1						1
	1	Ileus Peritonitis, acute local	do	1		1					1	
	1	Intestinal obstruction	do	1		1				1		
	1	Nephritis, acute Peritonitis, acute diffuse	do	1		1				1		
	58	Peritonitis, acute diffuse	do	58		57		1		29	27	2
	1	Peritonitis, acute diffuse Pneumonia, broncho	do	1		1					1	
	23	Peritonitis, acute local	do	23		23				11	10	2
	1	Penumonia, broncho	do	1		1					1	
Appendicitis, gangrenous	37		do	37		37				35	1	1
	5	Peritonitis, acute diffuse	do	5		5				2	3	
	1	Peritonitis, acute local	do	1		1					1	
	1	Pneumonia, lobar	do	1		1				1		
Arthritis	4		Arthrotomy	3		2		1		3		
			Paracentesis	1				1		1		
Balanitis	3		Incision	3					3	3		
Bladder, other diseases of	1		Bladder, removal foreign bodies	1					1	1		
	3	Cystitis	Crystoscopy	3		1		2		2		1
Bronchitis	1	Mastoiditis Otitis media	Mastoidotomy with drainage	1				1				1
	1	Otitis media	Paracentesis	1				1		1		

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Bullet or other recent wounds.	1		Excision	1				1		1		
Bursitis	39		Bursa, excision of	18		8		3	7	17		1
			Bursa, incision of	20		7		2	11	17		3
			Paracentesis	1				1		1		
Calculus, urinary	5		Cystostomy, suprapubic	3		2		1		1		2
			Cystoscopy	1					1	1		
			Bladder, removal foreign bodies	1					1	1		
	2	Cystitis	Cystostomy, suprapubic	2				2		2		
Callositas	13		Excision	13		3	4	6		10		3
Carbuncle	80		do	13		9		1	3	11		2
			Incision	67	4	13	2	25	23	61		6
Carcinoma	5		Excision	1				1		1		
			Gastrectomy	1				1		1		
			Gastrostomy	1				1			1	
			Laparotomy, exploratory	2		1		1			2	
	1	Abscess	Incision	1		1					1	
Caries, dental	2		Tooth, extraction of	2				1	1	2		
	5	Abscess, aveolar	Incision	5		2		1	2	4		1
Cartilage, floating	11		Joint, removal loose bodies	11		6	1	1	3	8		3
Cataract	2		Cataract extraction	2				1	1	1		1
Cellulitis	401		Incision	401	10	53	19	104	215	371		30
Chalazion	29		Chalazion operation	29				4	25	29		
Chancroid	5	Chancroidal paraphimosis	Circumcision	5		1		1	3	3		2
	77	Chancroidal phimosis	do	77		15	1	6	55	27		50
	1	do Syphilis, primary	do	1					1	1		
	1	Balanitis Lymphadenitis	Incision	1				1		1		
	15	Chancroidal phimosis	do	15				6	9	14		1
	1	do Balanitis	do	1				1		1		
	882	Lymphadenitis	Adenectomy	187	4	33	20	57	73	170		17
			Incision	695	1	75	14	121	484	660		35
	1	do Gonorrhea	Adenectomy	1			1			1		

	2	Lymphadenitis Phimosis	do.	2					2	1		1
	7	Lymphadenitis Syphilis, primary	do.	3				1	2	3		
Cholecystitis	14		Incision	4				3	1	4		
			Cholecystectomy	10		4		6		4	1	5
			Cholecystotomy	4		3			1	4		
	12	Cholelithiasis	Cholecystectomy	6		4		2		4	1	1
			Cholecystotomy	6		4		2		5	1	
	1	Fistula, biliary	do.	1		1						1
Cholecystitis, gangrenous	1		do.	1		1					1	
Chondroma	1		Excision	1				1		1		
Cicatrix, painful	12		Amputation of upper extremity, all or part.	3		3				3		
			Excision	8		6		1	1	8		
			Plastic repair with skin grafting	1				1		1		
Circulatory system, other diseases of.	2		Excision	2		2				2		
Clavus	24		do.	24		2		5	17	24		
Condyloma acuminatum	10		do.	10					10	9		1
Contraction, cicatricial	3		do.	1		1						1
			Incision	1					1	1		
			Tenorrhaphy	1				1				1
Conjunctivitis, granular	4		Trachoma, expression for	1		1						1
			Excision	3				3		3		
Cryptorchidism	14		Orchidectomy	11		10			1	9		2
			Orchidotomy	3		3				2		1
	1	Epididymitis Hydrocele	Orchidectomy	1		1				1		
Cyst	119		Cystectomy	118	1	37	1	19	60	97		21
			Lacrimal sac, extirpation of	1					1	1		
Cyst, dermoid	5		Cystectomy	5	1	1		1	2	3		2
	1	Abscess	do.	1		1				1		
Cyst, sebaceous	94		do.	94		11	1	19	63	90		4
	1	Infection	Incision	1				1				1
Dacrocystitis	1		do.	1					1	1		
Diphtheria	1	Abscess, peritonsillar	do.	1			1			1		
Ear, other diseases of.	1		Excision	1				1		1		
Ectropion	1		Plastic repair	1					1	1		
Endothelioma	3		Laparotomy	3		2		1		3		
Epididymitis	21		Epididymectomy	5		3		1	1	5		
			Epididymotomy	16		8		7	1	13		3
Epidermolysis bullosa	1		Paracentesis	1		1				1		
Epilepsy, Jacksonian	1		Decompression	1				1		1		
Epithelioma	9		Excision	9		5		2	2	7		2
Exostosis	43		Amputation of lower extremity, all or part.	1				1		1		
			Excision	42	29	2		6	5	39		3
Eye, foreign body in	8		Eye, removal foreign body	8		1		3	4	8		
	1	Keratitis, ulcerative	do.	1	1					1		

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Eye, other diseases of	5		Enucleation, simple	1				1				1
			Excision	2					2	2		
			Iridectomy	1				1		1		
			Tenotomy	1					1	1		
Fibroma	6		Excision	6		3			3	6		
Fissure, anal	20		Rectum, divulsion of	19	2	12		5		15		4
			Suture	1		1				1		
Fistula	16		Fistula excision	13		5		5	3	12		1
			Fistula incision	3					3	3		
Fistula in ano	244		Fistula excision	127		85	3	24	15	115	1	11
			Fistula incision	117	3	86	4	11	13	103	1	13
	7	Fissure, anal	Fistula excision	7		5		1	1	7		
Fistula, fecal	2		do	2		1			1	2		
Fistula, postoperative	2		do	2		2				2		
Fistula, retroureteral	1		do	1		1						1
Flat feet	2		Tenoplasty	2		1		1		1		1
Foot, deformities of, cause or type not specified.	3		Amputation or lower extremity, all or part.	3	1	1			1	1		2
Furuncle	419		Incision	419	3	18	11	183	204	386		33
Ganglion	29		Excision	24	1	5		2	16	20		4
			Incision and curetment	5		1			4	5		
Gangrene	3		Amputation of lower extremity, all or part.	2				2		2		
			Amputation of upper extremity, all or part.	1				1		1		
Gastroptosis	1	Cholecystitis	Cholecystotomy	1		1				1		
General diseases, others	3		Excision	2				2		2		
			Incision	1					1	1		
Genitourinary system, other diseases of.	33		Circumcision	1					1	1		
			Cystorrhaphy	1				1		1		
			Excision	9		5		3	1	9		
			Incision	7		3		2	2	6		1
			Orchidectomy	9		7	2			8		1
			Paracentesis	1				1		1		

			Plastic repair	1				1		1		
			Prostatectomy	3		2		1		3		
			Testicle, plastic repair of	1		1				1		
Gingivitis	2	Abscess	Incision	2			1		1	2		
Glaucoma	1		Iridectomy	1				1		1		
Goiter, simple	15		Thyroidectomy, complete	6		3		3		5		1
			Thyroidectomy, partial	9		7		2		8		1
Goiter, exophthalmic	8		Thyroidectomy, complete	2		1			1	1		1
			Thyroidectomy, partial	6		1		3	2	4		2
Gonorrhea	26	Abscess	Incision	26		11			15	6		20
	1	Ankylosis, fibrous Arthritis	....do	1		1				1		
	2	Arthritis	....do	1		1				1		
			Paracentesis	1					1	1		
	1	Bladder, others of the	Bladder, removal of foreign bodies	1					1	1		
	1	Balanitis	Incision	1					1	1		
	6	Chancroidal lymphadenitis	Adenectomy	3		3				3		
			Incision	3		3				3		
	2	Chancroidal phimosis	Circumcision	2				2				2
	1	Condyloma acuminatum	Excision	1		1				1		
	1	Conjunctivitis, purulent	Enucleation, simple	1		1				1		
	1	Cystitis Prostatitis	Incision	1		1				1		
	326	Epididymitis	Epididymectomy	30		8	1	18	3	7		23
			Epididymotomy	296	6	105	30	108	47	69		227
	4	Epididymitis Arthritis	....do	4	2	2				2		2
	1	Epididymitis Chancroidal lymphadenitis	Incision	1				1				1
	2	Epididymitis Cystitis	Epididymotomy	2		2				2		
	1	Epididymitis Enuresis, nocturnal	....do	1		1				1		
	1	Epididymitis Fistula	....do	1					1			1
	1	Epididymitis Lymphadenitis	Incision	1				1				1
	15	Epididymitis Orchitis	Epididymectomy	8		6		2		7		1
			Epididymotomy	7				2	5	6		1
	1	Fistula	Fistula, excision	1		1						1
	1	Hydrocele Epididymitis	Hydrocele aspiration and infection of	1					1			1
	194	Lymphadenitis	Adenectomy	101	3	22	9	27	40	52		49
			Incision	93		6		26	61	28		65
	1	Lymphadenitis Orchitis	....do	1		1				1		
	1	Lymphadenitis Prostatitis	....do	1				1				1
	6	Orchitis	....do	1					1			1
			Orchidectomy	5		1		2	2	3		2

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete
Gonorrhea	6	Paraphimosis	Circumcision	5					5			5
			Incision	1					1			1
	1	Paraphimosis Abscess	Circumcision	1					1			1
	63	Phimosis	....do	59	2	11	5	2	39	18		41
			Incision	4					4			4
	1	Phimosis Arthritis	Circumcision	1				1				1
	5	Phimosis Balanitis	....do	5				5				5
	4	Phimosis Epididymitis	....do	4				3	1			4
	4	Phimosis Lymphadenitis	....do	4					4			4
	4	Prostatitis	Incision	4		1			3	2		2
	9	Stricture	Urethrotomy	4		1			3	2		2
			Urethrotomy, external	1		1				1		
			Urethrotomy, internal	4		2	2			2		2
	1	Stricture Abscess	Cystotomy, perineal	1		1				1		
	1	Vesiculitis, seminal	Vesiculectomy, seminal	1		1						1
Hallux valgus	99		Amputation of lower extremity, all or part.	7		5		1	1	6		1
			Excision	73		54		12	7	44		29
			Osteotomy	19		16		1	2	9		10
Hallux varus	1		Amputation of lower extremity, all or part.	1				1		1		
Hammer toe	149		....do	133		73	1	25	34	113		20
			Tenotomy	16		4		2	10	14		2
	1	Infection	Amputation of lower extremity, all or part.	1		1				1		
Hemorrhage	1		Artery, ligation of	1				1		1		
Hemorrhoids	2,145		Clamp and cautery	1,001	21	624	10	205	141	912		89
			Incision and removal of clot	13		2	1	3	7	13		
			Ligation	440	3	266	5	69	97	407		33
			Phlebectomy	688	12	361	8	127	180	638		50
			Phlebectomy and plastic repair	2		2				2		

			Rectum, divulsion of	1		1				1		
	1	Abscess	Clamp and cautery	1		1					1	
	4	Fistula in ano	do	3		3				2		1
			Phlebectomy	1		1						1
	1	Hemorrhage	do	1					1	1		
	1	Pyaemia	Clamp and cautery	1		1				1		
	1	Stricture	do	1		1				1		
	2	Ulcer	do	2		2				2		
Hernia	2,596		Femoral repair	16		13		2	1	14		2
			Inguinal repair	2,568	29	1,931	21	488	99	2,182	5	381
			Lumbar repair	9		5		2	2	7		2
			Umbilical repair	3		2		1		3		
	3	Abscess	Inguinal repair	3		3				3		
	3	Adhesions	do	3		3				3		
	1	Operation wound, infection of	do	1		1						1
	1	Orchitis	do	1		1						1
	1	Nephritis, acute Pneumonia, lobar	do	1		1				1		
	2	Pneumonia, broncho	do	2		2				2		
	4	Pneumonia, lobar	do	4		4				3		1
	1	Pyaemia, surgical	do	1		1					1	
	1	Varicocele	do	1				1		1		
Hernia, muscle	2		Suture	2				2		2		
Hernia, strangulated	6		Hernia, strangulated, open reduction of	5		3		1	1	4		1
			Inguinal repair	1		1				1		
Hordeolum	13		Incision	13				4	9	13		
Hydrocele	197		Aspiration and injection	21		7		9	5	18		3
			Hydrocele excision	152	1	93	36	5	17	138		14
			Incision of sac and suture	16		8		7	1	16		
			Paracentesis	8		1		4	3	8		
	1	Epididymitis	Hydrocele excision	1		1						1
	1	Orchitis	do	1		1						1
Hydronephrosis	3		Nephrectomy	3		3				2		1
Hypospadia	4		Plastic repair	4		4				4		
Infarct	6		Amputation of lower extremity, all or part	1		1				1		
			Incision	5		2			3	3		2
Influenza	1	Mastoiditis Otitis media	Mastoidotomy with drainage	1		1				1		
Intestinal obstruction	14		Gastroenterostomy	1		1				1		
			Intestines, other operations	3		2		1		1	2	
			Intestinal resection	2		1		1		1	1	
			Laparotomy and breaking up adhesions	1		1				1		
			Laparotomy	7		5		2		4	2	1
	1	Abscess	Laparotomy with drainage	1		1					1	
	1	Diverticulitis	Intestinal resection	1				1		1		
	1	Fistula, fecal	Laparotomy with drainage	1				1		1		
	3	Peritonitis, acute diffuse	Colostomy	1				1		1		
			Intestines, other operations	1		1				1		
			Laparotomy with drainage	1				1			1	

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Intestines, other diseases of the.	1		Intestinal resection	1		1				1		
	1	Pneumonia, broncho	Laparotomy	1		1				1		
Iridocyclitis	1		Enucleation, simple	1		1				1		
Joint, contracture of	1		Amputation of upper extremity, all or part.	1		1				1		
Joint, loose bodies in	1		Joint removal of loose bodies	1		1				1		
Keloid	5		Excision	5				1	4	5		
Kidney, other diseases of.	2		Nephropexy	1		1				1		
			Nephrorrhaphy	1		1				1		
Lacrimal duct, obstruction of.	2	Not stated	Lacrimal duct, dilation of	1					1	1		
			Excision	1					1	1		
Lipoma	11		do	11		4		2	5	11		
Liver, biliary cirrhosis of.	1		Laparotomy	1		1				1		
Locomotor organs, other diseases of.	19		Amputation of lower extremety, all or part.	11		3		4	4	10		1
			Bone fragments, removal of	1					1	1		
			Excision	3	1	1		1		3		
			Incision	1		1				1		
			Tendons, other operations on	2					2			2
			Tenotomy	1		1				1		
	1	Flat feet	do	1		1				1		
Lymphadenitis	711		Adenectomy	315	3	128	11	89	84	289	2	24
			Incision	396	6	152	2	70	166	344	1	51
	1	Cellulitis	do	1				1		1		
	1	Nephritis, chronic parenchymatous.	do	1		1				1		
	1	Sinus empyema	Adenectomy	1		1				1		
Lymphangioma	1		Excision	1					1	1		
Mastoiditis	113		Mastoidotomy with drainage	113	2	78		28	5	67	5	41
Measles	1	Abscess	Incision	1		1				1		
	1	Abscess, peritonsillar	do	1		1				1		
	1	Arthritis	do	1					1			1
	1	Lymphadenitis	do	1		1				1		
	22	Mastoiditis	Mastoidotomy with drainage	22		21		1		4		18

	13	Mastoiditis Otitis media	....do	13		2		9	2	1	1	11
	4	Mastoiditis Pneumonia, broncho	....do	4				4				4
	3	Mastoiditis Pneumonia, lobar	....do	3				3			1	2
	40	Otitis media	Myotomy	8				4	4	8		
			Paracentesis	32		2		30		10		22
	1	Otitis media Erysipelas	....do	1					1		1	
	1	Otitis media Hemorrhage	Artery, ligation of	1	1							1
	7	Otitis media Mastoiditis	Myotomy	4	1	1			2	4		
			Paracentesis	3					3			3
	3	Otitis media Pneumonia, broncho	....do	3					3			3
	1	Otitis media Tonsilitis	....do	1					1			1
	1	Otitis media Thrombosis	Myotomy	1					1			1
	1	Pleurisy, serofibrinous	Thoracentesis	1	1						1	
	9	Pleurisy, suppurative	Rib resection with drainage	9	5		1	2	1	5	3	1
	2	Pneumonia, broncho	Thoracentesis	2					2		2	
	2	Pneumonia, broncho Pleurisy, fibrinous	....do	2				1	1		2	
	2	Pneumonia, broncho Pleurisy, serofibrinous	....do	2					2			2
	40	Pneumonia, broncho Pleurisy, suppurative	Rib resection with drainage	25				17	8		12	13
			Thoracentesis	2					2		1	1
			Thoracotomy with drainage	13		2		4	7	2	4	7
	1	Pneumonia, broncho Septicaemia, general	Rib resection with drainage	1	1						1	
	3	Pneumonia, lobar	Thoracentesis	3					3			3
	1	Pneumonia, lobar Otitis media	Paracentesis	1	1						1	
	1	Pneumonia, lobar Papillo-ademo-carcinoma of kidney.	Rib resection with drainage	1	1							1
	1	Pneumonia, lobar Pleurisy, fibrinous	Thoracentesis	1		1					1	
	29	Pneumonia, lobar Pleurisy, suppurative	Rib resection with drainage	23	5	7			11	2	6	15
			Thoracentesis	4					4		1	3
			Thoracotomy with drainage	2		2					1	1
	2	Pneumonia, lobar Septicaemia, general	Rib resection with drainage	2		2						2
	1	Tonsils, hypertrophied	Tonsillectomy	1				1				1
Measles, German	1	Dacrocystitis	Incision	1				1		1		
	1	Pleurisy, suppurative	Rib resection with drainage	1				1		1		
	2	Pneumonia, lobar Pleurisy, suppurative	....do	2	1				1		2	

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Melano-sarcoma	1		Laparotomy	1		1					1	
Meningitis, cerebral spinal	1	Pneumonia, lobar Pleurisy, suppurative	Rib resection with drainage	1	1						1	
Metatarsalgia	1		Osteotomy	1		1				1		
Molar, impacted	10		Tooth, extraction of	10	6	3		1		2		8
	2	Abscess	Incision	2				2		2		
Mouth and annexia, other diseases of the.	5		Glossectomy	2		2				2		
			Incision	2					2	2		
			Plastic repair	1		1				1		
Mumps	1	Abscess	Incision	1					1	1		
	1	Mastoiditis	Mastoidotomy with drainage	1		1				1		
	1	Pleurisy, suppurative	Rib resection with drainage	1	1					1		
Naevus, fibrous	5		Excision	5				1	4	5		
Naevus, pigmentosus	3		do	3					3	3		
Naevus, pilosus	1		do	1					1	1		
Naevus, vascularis	1		do	1				1				1
Nail, ingrowing	1,127		do	1,063	7	77	8	169	802	1,012		51
			Incision	63		6	8	6	43	63		
			Ostectomy, partial	1					1	1		
	6	Cellulitis	Excision	5	4	1				4		1
			Incision	1	1							1
	1	Periostitis	do	1					1	1		
Nasal fossae, other diseases of the.	5		Excision	2				1	1	2		
			Incision	2					2	2		
			Plastic repair	1					1	1		
Necrosis	18		Amputation of upper extremity, all or part.	3	1	1			1	3		
			Excision	8		6		1	1	6		2
			Incision	5		4			1	4		1
			Osteotomy	2		2				2		
Nephritis	1		Nephrectomy	1				1		1		
Nephrolithiasis	13		do	3		1		2		3		
			Nephrolithotomy	10		9		1		10		
	1	Pyelitis	do	1				1		1		

	2	Pyonephrosis	Nephrectomy	1		1				1		
			Nephrolithotomy	1		1				1		
Nephroptosis	2		Nephropexy	2		1		1		2		
Nervous system, other diseases of.	1		Decompression	1		1				1		
Neuroma	2		Excision	2				1	1	1		1
Onychauxis	7		do	7		1		1	5	7		
Orchitis	7		Orchidectomy	3		2			1	3		
			Orchidotomy	4		3		1		4		
	1	Abscess	Incision	1		1				1		
	1	Epididymitis	Epididymotomy	1				1		1		
Osteitis deformans	2		Excision	2		2				2		
Osteoma	6		Amputation of upper extremity, all or part.	1		1				1		
			Excision	5		5				5		
Osteomyelitis	6		Amputation of upper extremity, all or part.	6	1	4			1	3		3
Other diseases not specified.	4		Excision	1					1	1		
			Incision	2				1	1	2		
			Paracentesis	1				1		1		
Otitis, external; circumscribed.	3		Incision	3				2	1	3		
Otitis, external; diffuse acute.	2		do	2					2	2		
Otitis media	176		Myotomy	36			2	10	24	35		1
			Paracentesis	140		5	1	71	63	114		26
	97	Mastoiditis	Mastoidotomy with drainage	80		51		26	3	51	4	25
			Myotomy	7		7				1	1	5
			Paracentesis	10		8			2	7	3	
Papilloma	26		Excision	26	1	4		5	16	26		
Pancreatitis	1	Cholangitis	Laparotomy	1		1				1		
Panophthalmitis	1		Enucleation, simple	1		1				1		
Paraphimosis	54		Circumcision	44		11		6	27	41		3
			Incision	10	6				4	9		1
Paronychia	33		Amputation of upper extremity, all or part.	1				1				1
			Incision	32		12	3	10	7	32		
Pericarditis	1		Paracentesis	1		1					1	
Periostitis	25		Incision	25	2	13		2	8	23		2
Peritonitis, acute diffuse	2		Laparotomy with drainage	2		2				2		
Peritonitis, acute local	1		do	1				1			1	
Pharyngitis	3	Abscess, peritonsillar	Incision	3				2	1	3		
Pharynx, other diseases of	1		Excision	1					1	1		
Phimosis	4,210		Circumcision	4,210	72	553	2	708	2,875	4,032		178
	24	Balanitis	do	22	1	4		8	9	19		3
			Incision	2					2	2		
	5	do Chancroid	Circumcision	5		1			4	4		1
	113	Chancroid	do	113	1	33	1	39	39	102		11
	1	Cryptorchidism	do	1					1			1
	87	Gonorrhea	do	87	2	17	5	13	50	24		63
	1	Infection	do	1					1			1

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Phimosis	1	Septicemia	Circumcision	1					1			1
	11	Syphilis, primary	do	11		5		1	5	10		1
	6	Syphilis, secondary	do	6				3	3	5		1
	1	Ulcer	do	1				1				1
	5	Verruca	do	5		1	1		3	4		1
Phlebitis	2		Phlebectomy	2				1	1	2		
Phlegmon, diffuse	1		Incision	1				1		1		
Physical development defective.	11		Amputation of lower extremity, all or part.	7		2		1	4	6		1
			Amputation of upper extremity, all or part.	2		2				1		1
			Excision	1		1				1		
			Plastic repair	1		1				1		
Pleurisy, fibrinous	11		Thoracentesis	11				5	6	8		3
	12	Pleurisy, suppurative	Rib resection with drainage	10		3		4	3	6		4
			Thoracotomy with drainage	2		1			1	2		
Pleurisy, sero-fibrinous	3		Thoracentesis	3				2	1	2		1
	2	Pleurisy, suppurative	Rib resection with drainage	2		1			1	2		
Pleurisy, suppurative	49		do	39	2	17	3	11	6	20	2	17
			Thoracotomy with drainage	10		3		2	5	4	1	5
Pneumonia, broncho	1	Osteomyelitis	Rib resection with drainage	1		1				1		
	1	Abscess, peritonsillar	Incision	1					1	1		
	45	Pleurisy, suppurative	Rib resection with drainage	43	14	1	1	20	7	4	5	34
			Thoracotomy	2					2	2		
Pneumonia, lobar	235	Pleurisy, suppurative	Paracentesis	7				7		1		6
			Rib resection with drainage	165	34	46	6	54	25	51	18	96
			Thoracotomy with drainage	63	1	15		18	29	32	18	13
	1	Pleurisy, suppurative Operation wound, infection of	Rib resection with drainage	1					1			1
	1	Pleurisy, suppurative Nephritis, acute	do	1					1			1
	2	Pleurisy, suppurative Pericarditis, purulent	do	2	2						2	
	1	Pleurisy, suppurative Peritonitis, acute diffuse	do	1					1			1
	1	Pleurisy, suppurative Pleurisy, fibrinous	Paracentesis	1				1		1		

	2	Pleurisy, suppurative Septicemia, general	....do	1				1				1
			Rib resection with drainage	1					1			1
	1	Otitis media	Paracentesis	1		1				1		
	7	Pleurisy, fibrinous	....do	7				7		1		6
	2	Pleurisy, sero-fibrinous	....do	2				2			2	
	4	Pleurisy, suppurative	....do	1				1		1		
			Rib resection with drainage	3	3						3	
Polypus, nasal	10		Excision	10				5	5	9		1
Proctitis	1		Rectum, divulsion of	1		1				1		
Pterygium	70		Pterygium operation	70				19	51	68		2
Ptosis	2		Ptosis operation	2		1			1	2		
Pyonephritis	2		Nephrectomy	2				2		2		
Pyorrhea, aveolaris	1	Cellulitis Septicemia	Incision	1				1			1	
Rectum, other diseases of	1		Proctectomy	1		1				1		
Rectum, prolapse of	4		Rectum, plastic repair of	4		3		1		3		1
Respiratory system, other diseases of.	3		Laryngoscopy	1				1		1		
			Tracheotomy	2		1		1		1	1	
Rheumatic fever	1	Ankylosis, fibrous	Arthroplasty, lower extremity	1		1				1		
Rhinitis, hypertrophic	1	Dacryocystitis	Lacrimal duct, extirpation of	1			1					1
Rings, relaxed inguinal	1		Inguinal repair	1		1						1
Sarcoma	9		Excision	4		2		1	1	3		1
			Laparotomy	5		4		1		1		4
Scarlatina	1	Pleurisy, suppurative Septicaemia	Rib resection with drainage	1					1	1		
Septum, deflected and spurs.	2		Excision	2				1	1	2		
Septum, deviated	919		Submucus resection	919	2	35	4	211	667	900		19
	4	Adenoids	....do	4				1	3	2		2
	1	Exostosis	....do	1				1		1		
	1	Hemorrhage	....do	1					1			1
	3	Polypus, nasal	....do	3					3			3
	38	Rhinitis hypertrophic	....do	38		3	1	13	21	25		13
	1	Septum perforated	....do	1		1				1		
	4	Sinusitis ethmoidal	....do	4					4	3		1
	10	Sinusitis frontal	....do	10				1	9	7		3
	1	Sinusitis maxillary	....do	1					1			1
	1	Sinusitis sphenoidal	....do	1					1	1		
	15	Turbinates, hypertrophied	....do	15				1	14	7		8
Sinus, empyema	3		Excision	1		1				1		
			Incision	2		2				2		
Sinusitis, ethmoidal	8		Sinusotomy, ethmoidal	8				3	5	7		1
	1	Septum, deviated	....do	1					1			1
	1	Sinusitis sphenoidal	....do	1					1	1		
Sinusitis, frontal	15		Sinusotomy, frontal	15		2		4	9	11		4
	1	Abscess	Incision	1		1				1		
	1	Sinus empyema	....do	1		1				1		
	1	Sinusitis ethmoidal	Sinusotomy, frontal	1		1				1		
	1	Sinusitis maxillary	....do	1		1				1		
Sinusitis, maxillary	16		Sinusotomy, maxillary	16	1	4		3	8	11		5
	1	Septum, deviated	....do	1					1			1

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Skin, other diseases of	13		Excision	5		2			3	5		
			Incision and drainage	4		2		2		4		
			Plastic repair	3				3		3		
			Skin grafting	1					1	1		
	1	Melanoderma	Excision	1		1				1		
Spleen, diseases of	1		Incision, exploratory	1				1				1
Staphyloma cornea	1		Enucleation, simple	1		1				1		
Strabismus	20		Tenotomy	20				8	12	17		3
Stricture (location not given).	12		Dilatation	5		2		2	1	4		1
			Incision	7		2			5	7		
Stricture, urethral	7		Urethrotomy, internal	7		2		3	2	6		1
	1	Urine, incontinence	Urethrotomy, external	1		1				1		
Symblepharon	2		Symblepharon operation	2					2	2		
Synovitis	8		Incision	3		2			1	2		1
			Paracentesis	5				2	3	5		
Synovitis, suppurative	1		Incision	1				1		1		
Syphilis, primary	1	Abscess	do	1					1	1		
Syphilis, secondary	3	Chancroidal lymphadenitis	Adenectomy	3		2		1		3		
	26	Lymphadenitis	do	13		3	1	6	3	9		4
			Incision	13		1		3	9	12		1
Syphilis, tertiary	1		Spinal puncture	1				1		1		
	1	Lymphadenitis	Adenectomy	1				1		1		
Talipes	1		Tendons, other operations on	1		1				1		
Tendon, contracture of	1		Tenotomy	1		1						1
Tenosynovitis	1		Paracentesis	1					1	1		
Tenosynovitis, fibinous	6		Tendons, other operations on	1		1						1
			Tenotomy	5		3		1	1	4		1
Tenosynovitis, suppurative.	1		Incision	1				1				1
Teratoma	4		Excision	4	1	1		1	1	4		
Testicle, atrophy of	2		Orchidectomy	2		2				2		
Testicle, other diseases of	1	Cyst	do	1					1			1
Testicle, tubercular	1		do	1		1				1		
Thrombosis	1		Vein, ligation of	1					1	1		
Tonsils, hypertrophied	3,369		Tonsillectomy	3,369	18	512	4	682	2,153	3,078	1	290
	60	Abscess, peritonsillar	do	58		26		3	29	28		30
			Incision	2					2	2		

	6	Angina, Vincents	do	1					1	1		
			Tonsillectomy	5		2		1	2	5		
	3	Otitis media	Myotomy	1					1	1		
			Paracentesis	2					2	2		
	3	Arthritis	Tonsillectomy	3		3				2		1
	1	Arthritis Pericarditis, acute fibrinous	do	1		1				1		
	4	Diphtheria	do	4		1			3	4		
	1	Epiglottiditis	do	1				1		1		
	4	Hemorrhage	do	4		4				4		
	10	Otitis media	do	10		7		2	1	10		
	1	Pneumonia, lobar	do	1		1				1		
	5	Rheumatic fever	do	5		4			1	5		
	1	Rheumatism, muscular	do	1				1		1		
	5	Tonsillitis, suppurative	do	5				3	2	5		
	366	Adenoids	Tonsillectomy and adenoidectomy	366	17	91		41	217	357	3	6
	1	Adenoids Rheumatic fever	do	1		1				1		
Tonsillitis, suppurative	4		Incision	4				1	3	4		
Tuberculosis (location not stated).	16		Amputation of upper extremity, all or part.	2		1		1		1		1
			Excision	10		2		7	1	9	1	
			Incision	4		1		3		3		1
	4	Lymphadenitis	Adenectomy	1		1				1		
			Incision	3		3				2		1
	1	Osteitis deformas	Excision	1		1				1		
	3	Osteomyelitis	do	1		1						1
			Sequestrotomy	2		2				1		1
Tuberculosis, pulmonary, chronic.	1	Epididymitis	Epididymectomy	1		1						1
	2	Not stated	Amputation of lower extremity, all or part.	1				1		1		
			Laparotomy	1		1				1		
	2	Pleurisy, serofibrinous	Paracentesis	2				2		1		1
	2	Pleurisy, suppurative	Rib resection with drainage	2		1		1				2
Tumor, benign	101		Excision	98		38	1	22	37	89		9
			Laparotomy	3		3				2	1	
Tumor, brain	1		Trephine and excision	1		1						1
Turbinates, hypertrophied.	134		Turbinectomy	134		4		19	111	133		1
	1	Abscess	do	1					1	1		
	2	Hemorrhage	do	2				2		2		
	3	Otitis media	do	3				1	2	3		
	1	Polypus, nasal	do	1					1	1		
	15	Septum, deviated	do	15				6	9	15		
	6	Sinusitis, ethmoidal	do	6				2	4	5		1
	17	Sinusitis, frontal	do	17		1		3	13	17		
	2	Sinusitis, maxillary	do	2					2	2		
Typhoid fever	1	Hemorrhage Ulcer, perforated	Enterorrhaphy	1		1				1		
Ulcer (location not stated)	8		Excision	8		2		3	3	5		3
Ulcer, duodenal or jujunal	13		Gastroenterostomy	13		9		4		9	1	3
	1	Peritonitis, acute diffuse	Enterorrhaphy	1		1					1	

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 1.—OPERATION FOR DISEASE—Continued.

Disease.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died	Incomplete.
Ulcer, gastric	22		Gastroenterostomy	17		8		9		10		7
			Gastrorrhaphy	1		1				1		
			Laparotomy	3		3				2		1
			Stomach, other operations	1		1				1		
	1	Cholecystitis	Cholecystectomy	1		1				1		
	2	Peritonitis, acute diffuse	Gastroenterostomy	1		1				1		
			Laparotomy	1		1						1
	1	Pleurisy, fibrinous	Gastroenterostomy	1		1				1		
	1	Syphilis, tertiary	do	1		1				1		
Ulcer of foot, perforated	1		Excision	1					1	1		
Ulcer, perforated (location not stated).	1		Laparotomy	1		1				1		
Undiagnosed	2		Thoracotomy	1		1				1		
			Laparotomy	1		1						1
Vaccina	11	Abscess	Incision	11		2		2	7	11		
Vaccination, typhoid	2	do	do	2				1	1	2		
Varicocele	1,109		Ligation	9		4		4	1	8		1
			Phlebectomy	1,100	8	621	8	329	134	900		200
	1	Cellulitis	do	1		1				1		
	1	Epididymitis	do	1		1				1		
	1	Hemorrhage	do	1		1				1		
	10	Hydrocele	do	10		8		1	1	9		1
	1	Orchitis	do	1		1				1		
	1	Testicle, atrophy of	do	1		1				1		
	3	Veins, varicose	do	3		3				3		
Veins, varicose	245		Ligation	12		4		8		12		
			Phlebectomy	233	2	141		67	23	187		46
	1	Embolism	do	1		1				1		
	2	Varicocele	do	2		2				2		
	2	Ulcer, varicose	do	1		1				1		
			Incision	1		1				1		
Verruca	36		Excision	36		1	1	8	26	35		1
Vesiculitis, seminal	2		Vesiculectomy, seminal	2		2				1		1
Yaws	1		Incision	1				1		1		
Total	28,664				429	10,701	314	6,176	11,044	24,707	223	3,734

PART 2.—OPERATION FOR TRAUMATISM.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Abrasion	53	Abscess	Incision	53		9	3	22	19	53		
	75	Cellulitis	do	75		1		71	3	75		
	1	Infection, erogenic	do	1				1		1		
	1	Abscess. Periostitis	do	1				1		1		
	1	Phlegamon, diffuse	do	1				1		1		
Amputation, painful stump following.	1		Amputation of upper extremity, all or part.	1					1	1		
Amputation, traumatic	77		Amputation of lower extremity, all or part.	8	1			6	1	8		
			Amputation of upper extremity, all or part.	48	2	17		21	8	47		1
			Artery, ligation of	1					1	1		
			Autoplasty	1				1		1		
			Bone fragments, removal of	1		1				1		
			Suture	17	1	4		8	4	17		
			Tenotomy	1		1				1		
	1	Abscess	Incision	1				1		1		
	3	Cellulitis	Amputation of upper extremity, all or part.	3		3				3		
	1	Infection, pus	do	1	1							1
	1	Nerve complication	do	1		1				1		
Bites	3		Myorrhaphy	2		1		1		2		
			Skin, grafting of	1					1			1
	1	Abscess	Incision	1				1		1		
	2	Cellulitis	do	2				2		2		
	1	Infection, pus	do	1					1	1		
Bites and stings, venomous.	5		Amputation of upper extremity, all or part.	1				1		1		
			Incision	4			1	2	1	4		
	5	Abscess	do	5				5		5		
	6	Cellulitis	do	5				5		5		
	8	Infection, pus	do	8				6	2	8		
Burns	2		Skin, grafting of	2				1	1	2		
	2	Cellulitis	Incision	2				1	1	2		
	3	Infection, pus	do	3				2	1	3		
Burns, chemical	1		Skin, grafting of	1				1		1		
	1	Infection, pus	Amputation of upper extremity, all or part.	1		1				1		

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 2.—OPERATION FOR TRAUMATISM—Continued.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Cataract, traumatic	3		Cataract extraction	2				1	1	2		
			Enucleation, simple	1		1				1		
Cold, exposure to extreme.	1	Infection, aerogenic	Incision	1				1		1		
Compression	1		Decompression	1		1				1		
Concussion	2		Amputation of upper extremity, all or part.	1				1		1		
			Trephining	1				1			1	
Conjunctivitis, traumatic.	1		Conjunctiva, foreign bodies, removal from.	1					1	1		
Contusion	1	Not stated	Enucleation, simple	1		1						1
	11	Abscess	Incision	11				11		11		
	20	Cellulitis	do	20				18	2	20		
	1	Gangrene, noninfectious	Amputation of lower extremity, all or part.	1		1				1		
	17	Infection, pus	Incision	17				13	4	16		1
	2	Not stated	do	2				2		2		
	1	Periostitis	do	1					1	1		
Cornea, foreign body in	8		Cornea, foreign bodies, removal from	8				4	4	8		
	13	Not stated	Enucleation, simple	13				8	5	13		
Crushing	88		Amputation of lower extremity, all or part.	43		23		17	3	39	2	2
			Amputation of upper extremity, all or part.	35	1	17		13	4	33	1	1
			Bladder, foreign bodies removal from	2		1		1		2		
			Cystostomy, supra-pubic	1		1						1
			Excision	2		1			1	2		
			Fracture, reduction of open, by plate	1		1					1	
			Fracture, removal of fragments	1		1						1
			Laparotomy, exploratory	1				1		1		
			Skin, grafting of	1		1				1		
			Suture	1		1						1
	1	Cellulitis Dislocation	Joint, dislocation, open reduction, upper.	1		1						1
	1	Gangrene, noninfectious	Amputation of lower extremity, all or part.	1		1						1
	1	Infection, pus	Amputation of upper extremity, all or part.	1		1						1

	2	Septicemia...	Amputation of lower extremity, all or part.	2	...	2	...	...	...	1	...	1
Dermatitis venenata...	1	Abscess...	Incision...	1	...	...	...	1	...	1	...	...
Dislocation...	34	...	Joint, dislocation, closed reduction, upper.	27	2	12	...	13	...	27	...	...
			Joint, dislocation, open reduction, lower.	1	...	1	...	...	...	1	...	...
			Operations: others not specified...	1	...	...	...	1	...	1	...	...
			Ligament, repair of...	5	...	3	...	2	...	4	...	1
	1	Abscess...	Joint dislocation, closed reduction, upper.	1	...	...	...	1	...	...	...	1
	6	Not stated...	Arthrectomy, partial, upper extremity.	1	...	1	...	...	...	1	...	...
			Arthroclasia, upper extremity...	1	...	1	...	...	...	1	...	...
			Arthroplasty, lower extremity...	4	...	2	...	1	1	3	...	1
	120	Osteomyelitis...	Joint, dislocation, closed reduction, upper.	119	15	32	...	70	2	113	...	6
			Sequestrotomy...	1	...	...	...	1	...	1	...	...
Dislocation of articular cartilage, knee joint.	23	...	Chondrectomy...	2	...	1	...	1	...	2	...	...
			Joint, dislocation, closed reduction, lower.	4	...	...	...	4	...	4	...	...
			Joint, dislocation, open reduction, lower.	1	...	...	...	1	...	1	...	...
			Joint, excision, synoval folds, lower...	4	...	1	...	3	...	4	...	...
			Joint, removal of loose bodies, lower...	12	...	6	...	6	...	12	...	...
Epiphyseal separation...	1	...	Fracture, reduction of, closed, method not stated.	1	...	1	...	...	...	1	...	...
Eye, traumatic rupture of.	1	...	Enucleation, simple...	1	...	...	...	1	...	1	...	...
Foreign body, traumatic.	102	...	Conjunctiva, foreign bodies, removal from.	1	...	...	...	...	1	1	...	...
			Cornea, foreign bodies, removal from..	3	...	...	...	1	2	3	...	...
			Enterotomy...	1	...	...	...	1	...	1	...	...
			Eye, removal of foreign body...	3	...	...	...	1	2	3	...	...
			Foreign body, removal of...	85	1	6	2	60	16	85	...	...
			Incision, exploratory...	2	...	...	...	1	1	2	...	...
			Magnet, extraction...	1	...	...	...	1	...	1	...	...
			Projectile, extraction of...	4	...	...	...	3	1	4	...	...
			Sclera, foreign bodies, removal from...	2	...	...	...	...	2	2	...	...
	2	Abscess...	Foreign body, removal of...	2	...	...	...	1	1	2	...	...
	1	Gangrene, noninfectious...	Amputation of upper extremity, all or part.	1	...	...	...	1	...	1	...	...
	5	Infection, pus...	Foreign body, removal of...	3	...	...	...	...	3	1	...	2
			Incision...	2	...	1	...	1	...	2	...	...
	1	Peritonitis...	Laparotomy...	1	...	...	...	1	...	...	1	...
Fracture, comminuted...	27	...	Amputation of lower extremity, all or part.	3	...	1	...	2	...	2	...	1
			Amputation of upper extremity, all or part.	1	...	1	...	...	...	1	...	...
			Arthroclasia, upper extremity...	1	...	1	...	...	...	1	...	...
			Bone fragments, removal of...	3	...	1	1	1	...	3	...	...
			Bone graft, lower...	1	...	1	...	...	...	1	...	...
			Fracture, reduction of, closed, method not stated.	5	...	4	...	1	...	5	...	...

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 2.—OPERATION FOR TRAUMATISM—Continued.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Fracture, comminuted			Fracture, reduction of, closed with plaster of Paris.	4		3		1		3		1
			Fracture, reduction of, open by plate	2				2		2		
			Fracture, reduction of, open by suture	3				3		3		
			Fracture, reduction of, open by wiring	3		1		2		3		
			Laminectomy	1				1		1		
	1	Abscess	Fracture, reduction of, closed method not stated.	1		1				1		
	1	Cellulitis	Incision	1				1		1		
	1	Osteomyelitis	Fracture, reduction of, open by plate	1		1				1		
Fracture, compound	80		Amputation of lower extremity, all or part.	9		4		5		6	2	1
			Amputation of upper extremity, all or part.	10	1	1		6	2	10		
			Bone fragments, removal of	1				1		1		
			Bone graft, lower	2				2		2		
			Bone plate, removal of, lower extremity.	1				1		1		
			Decompression	5		2		3		3	2	
			Fracture, compound, reduction of, method not stated.	23		10		9	4	22		1
			Fracture, compound, reduction of, with plaster of Paris.	3		1		2		2		1
			Fracture, compound, reduction of, open by plate.	4		3		1		4		
			Fracture, reduction of, open by suture	6		3		3		6		
			Fracture, reduction of, open by wiring	4		2		2		4		
			Fracture, compound, reduction of, with external splints.	2				2		2		
			Fracture, removal of fragments	3		1		2		3		
			Ostectomy, partial	2				2		1		1
			Projectile, extraction of	1				1		1		
			Sequestrotomy	2	1			1		2		
			Tenorrhaphy	1		1				1		
			Trephining	1		1						1
	3	Abscess	Incision	3				2	1	2		1
	3	Cellulitis	do	3		2			1	2		1

	1	Infection, pus	Cystotomy, suprapubic	1		1				1		
	1	Osteomyelitis	Amputation of lower extremity, all or part.	1	1					1		
Fracture, delayed union following.	1		Ostectomy	1					1	1		
Fracture, near joint, with dislocation.	5		Bone fragments, removal of	1		1				1		
			Joint, dislocation, open reduction, upper.	4	1	2		1		4		
Fracture, faulty union following.	10		Amputation of lower extremity, all or part.	1		1						1
			Bone plate, removal of, upper extremity.	1				1		1		
			Bone rebroken, upper extremity and set for faulty union.	2		1		1		2		
			Fracture, reduction of, closed, method not stated.	1		1				1		
			Fracture, reduction of, open by wiring.	3		1		2		3		
			Fracture, removal of fragments	1		1				1		
			Ostectomy, partial	1				1		1		
Fracture, fibrous union following.	1		Fracture, reduction of, open by plate	1			1			1		
Fracture, nonunion following.	3		Bone graft, upper extremity	1		1				1		
			Fracture, reduction of, open by wiring.	1		1				1		
			Ostectomy, partial	1				1		1		
	3	Osteomyelitis	Amputation of lower extremity, all or part.	1		1				1		
			Amputation of upper extremity, all or part.	2		1		1		2		
Fracture of skull, depression following.	4		Decompression	1				1		1		
			Fracture, removal of fragments	2		1		1			1	1
			Trephining	1		1				1		
Fracture, simple	316		Amputation of lower extremity, all or part.	5		5				4		1
			Amputation of upper extremity, all or part.	4		1		2	1	4		
			Arthroclasia, upper extremity	1		1				1		
			Bone fragments, removal of	4		2		2		4		
			Bone graft, lower extremity	3		2		1		3		
			Bone plate, removal of, lower extremity.	1		1				1		
			Decompression	6		4		2		2	2	2
			Fracture, reduction of, closed, method not stated.	103	1	38		62	2	89	1	13
			Fracture, reduction of, closed with external splints.	2				2		1		1
			Fracture, reduction of, closed with Hodgen's splint.	1		1						1
			Fracture, reduction of, closed with plaster of Paris.	78	1	22	54	1		75		3

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 2.—OPERATION FOR TRAUMATISM—Continued.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Fracture, simple			Fracture, reduction of, open by band	1		1				1		
			Fracture, reduction of, open by bone graft.	3		2		1		3		
			Fracture, reduction of, open by plate.	33		28		5		30		3
			Fracture, reduction of, open by suture.	8		5		3		8		
			Fracture, reduction of, open by wiring.	37		22		15		34		3
			Fracture, removal of fragments	10		5		4	1	10		
			Fragments, depressed, elevation of	3		2		1		3		
			Laminectomy	1		1				1		
			Operations; others not specified	1				1		1		
			Ostectomy, complete	1		1				1		
			Osteotomy	3				3		3		
			Sequestrotomy	3		1		2		3		
			Silver wire, removal of, lower extremity	1		1				1		
			Trephining	3		1		1	1	1	1	1
	4	Abscess	Incision	4	2	1			1	4		
	1	Cellulitis	Operations; others not specified	1				1		1		
	3	Fracture, malunion	Fracture, reduction of, open by plate	3	1	1		1		2		1
	2	Gangrene, noninfectious	Amputation of lower extremity, all or part.	2		1		1		1	1	
	1	Nerve complication	Laminectomy	1		1					1	
	2	Osteomyelitis	Fracture, reduction of, open by plate	2				2				2
	2	Periostitis	Incision	2		1		1		2		
	1	Sloughing	do	1			1					1
Frostbite	1		Amputation of upper extremity, all or part.	1				1		1		
	1	Abscess	Incision	1				1		1		
	1	Cellulitis	do	1		1						1
Hematoma, traumatic	11		Clot, removal of	11		1		3	7	10		1
	1	Infection, pus	do	1	1					1		
Homicide	4		Enterorrhaphy	1		1					1	
			Intestines; other operations	1		1					1	
			Laminectomy	1				1			1	
			Laparatomy	1				1			1	
Injury, secondary result of.	138		Amputation of lower extremity, all or part.	12		3		6	3	10		2

		Amputation of upper extremity, all or part.	19	8	1		1	9	18		1
		Aneurismorrhaphy	1				1		1		
		Artery, ligation of	1				1		1		
		Arthroclasia, upper extremity	1				1		1		
		Arthrotomy, lower extremity	2		1		1		1		1
		Bone fragments, removal of	1		1				1		
		Bone plate, removal of, lower extremity	1		1				1		
		Bone plate, removal of, upper extremity	1				1		1		
		Chondrectomy	4		3		1		3		1
		Excision	7		3		4		7		
		Exploratory incision	3				2	1	3		
		Lids, foreign bodies, removal from	1				1		1		
		Cornea, foreign bodies, removal from	2				1	1	2		
		Foreign body, removal of	9		2		1	6	7		2
		Fracture, reduction of, closed method not stated.	1				1		1		
		Fracture, reduction of, open by suture.	1		1				1		
		Fracture, removal of fragments	1		1				1		
		Incision	6	1			5		6		
		Joint, dislocation, closed reduction, lower.	1				1		1		
		Joint, dislocation, closed reduction, upper.	1				1		1		
		Joint, removal foreign or loose bodies, lower.	3		2		1		3		
		Joint, removal foreign or loose bodies, upper.	2		1		1		2		
		Neurorrhaphy	2		1		1		2		
		Nose, plastic repair	1				1		1		
		Operations: others not specified	2		2				2		
		Ostectomy, partial	8	1	4		2	1	7		1
		Osteotomy	8		1		7		8		
		Plastic repair	3		2		1		3		
		Projectile, extraction of	9		4		4	1	9		
		Sequestrotomy	6		2		4		5		1
		Silver wire, removal of, lower extremity	1		1				1		
		Silver wire, removal of, upper extremity	2				1	1	2		
		Skin, plastic repair	1		1				1		
		Suture	4		1		3		4		
		Tendons, other operations on	3		2		1		3		
		Tenoplasty	4		3		1		4		
		Tenotomy	3		1		1	1	2		1
5	Abscess	Incision	5		2		1	2	5		
3	Cellulitis	Amputation of upper extremity, all or part.	1				1		1		
		Incision	1				1				1
		Sequestrotomy	1				1		1		
3	Gangrene, gaseous	Amputation of upper extremity, all or part.	1				1		1		
		Osteotomy	2		2				2		

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 2.—OPERATION FOR TRAUMATISM—Continued.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Injury, secondary result of.	1	Infection, pus	Amputation of upper extremity, all or part.	1				1				1
	1	Osteomyelitis	....do	1				1				1
	3	Periostitis	Osteotomy	3		1			2	3		
Mutilation, self	2		Amputation of lower extremity, all or part.	1		1				1		
			Plastic repair	1				1		1		
Painful stump, following amputation.	4		Amputation of upper extremity, all or part.	3	1	1		1		3		
			Excision	1		1				1		
Prolapse of iris	2		Iridectomy	2					2	2		
Rupture	6		Cystotomy, perineal	1		1				1		
			Enterorrhaphy	1				1		1		
			Enucleation	2				2		2		
			Gastrorrhaphy	1				1		1		
			Hepatorrhaphy	1		1				1		
	1	Peritonitis	Laparotomy	1				1		1		
Rupture (location not stated).	8		....do	3		2		2		1	2	
			Suture	3		1		2		1	1	1
			Tenorrhaphy	2		1			1	2		
Sprain of joint	7		Joint, aspiration, lower	1		1				1		
			Joint, removal foreign or loose bodies, lower.	5		4		1		5		
			Paracentesis	1				1		1		
Strain	2	Not stated	Incision	2		1			1	2		
Strangulation	4		....do	3		1		1	1	3		
		Not stated	Paracentesis	1				1		1		
Suicide	3		Laparotomy	3		1		2			3	
	1	Septicaemia	Suture	1				1			1	
Synovitis, traumatic	9		Chondrectomy	2				2		2		
			Joint, aspiration of lower	5				5		5		
			Incision	2		1		1		1		1
Wound, contused	5		Clot, removal of	1				1		1		
			Enucleation	1				1		1		
			Orchidectomy	3		1		2		3		
	22	Abscess	Incision	22	1	2		1	18	22		
	21	Cellulitis	....do	21		7		11	3	20		1

Wound, gunshot	1	Infection, pus	do	1					1	1		
	45	Not stated	do	33		1		30	2	33		
			Laminectomy	1				1		1		
			Sequestrotomy	1				1		1		
			Skin, grafting of	2				1	1	2		
			Suture	8				8		8		
	4	Osteomyelitis	Incision	2				2		2		
			Ostectomy, partial	2				2		2		
	1	Periostitis	Incision	1				1		1		
	1	Peritonitis	Laparotomy, exploratory	1				1			1	
	182		Amputation of lower extremity, all or part.	26		8	1	14	3	20	1	5
			Amputation of upper extremity, all or part.	43	1	14		27	1	41		2
			Autoplasty	1				1		1		
			Bone fragments, removal of	7		3		2	2	5		2
			Cystorrhaphy	1				1		1		
			Cystostomy, suprapubic	1		1				1		
			Enucleation, simple	6		3		3		4		2
			Excision	5		3		2		2		3
			Foreign bodies, removal from orbit	1					1	1		
			Foreign body, removal of	4		1			3	4		
			Fracture, reduction of, closed, method not stated.	1				1		1		
			Fracture, compound, reduction of, with external splints.	1		1				1		
			Fracture, removal of fragments	8		2		4	1	8		
			Incision, exploratory	3		3				3		
			Intestinal resection	1				1				1
			Operations, others not specified	1				1		1		
			Plastic repair	2		1		1		2		
			Projectile, extraction of	57	1	16		27	13	55		2
			Repair and suture	5				5		5		
			Rib resection	1				1		1		
			Sequestrotomy	1		1				1		
			Tenoplasty	1		1				1		
			Tenorrhaphy	2	1			1		1		1
			Thoracentesis	1				1		1		
			Trephining	2	1	1				1	1	
	1	Abscess	Projectile, extraction of	1		1						1
	1	Cellulitis	Amputation of upper extremity, all or part.	1		1						1
	2	Gangrene, non infectious	do	1		1						1
			Enterorrhaphy	1				1			1	
	1	Infection, aerogenic	Amputation of lower extremity, all or part.	1	1						1	
	1	Osteomyelitis	Amputation of upper extremity, all or part.	1		1						1
	1	Periostitis	Incision	1				1		1		
	1	Peritonitis	Enterorrhaphy	1		1					1	
	1	Septicaemia	Amputation of lower extremity, all or part.	1	1							1

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 2.—OPERATION FOR TRAUMATISM—Continued.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Wound, incised	145		Amputation of lower extremity, all or part.	2				1	1	2		
			Amputation of upper extremity, all or part.	6		4		1	1	6		
			Arteriorraphy	1		1				1		
			Bone fragments, removal of	1		1				1		
			Enucleation, simple	2		1		1		2		
			Foreign body, removal of	1				1		1		
			Laparotomy	2		1		1		2		
			Myorrhaphy	2		1		1		2		
			Neurorrhaphy	1				1		1		
			Suture	107		3		102	2	107		
			Tenorrhaphy	20	1	5		10	4	18		2
	6	Abscess	Incision	6				2	4	6		
	18	Cellulitis	Amputation of upper extremity, all or part.	1				1		1		
			Incision	17		1		11	5	17		
	2	Infection, aerogenic	Amputation of upper extremity, all or part.	2					2	2		
	10	Infection, pus	Incision	8		1		7		8		
			Plastic repair	1		1				1		
			Suture	1					1	1		
	2	Intercurrent disease	Incision	2					2	2		
	2	Osteomyelitis	do	2					2	2		
	8	Phlegmon, diffuse	Suture	8		1		7		8		
	1	Septicæmia	Incision	1	1						1	
	1	Sloughing	Amputation of upper extremity, all or part.	1				1		1		
Wound, infection of	9	Abscess	do	1		1				1		
			Incision	8	1	2	1	4		8		
	10	Cellulitis	do	10		1		8	1	10		
	8	Infection, pus	do	7					7	6		1
			Silver wire, removal of, upper extremity.	1		1						1
	2	Osteomyelitis	Sequestrotomy	1		1				1		
			Silver wire, removal of, upper extremity.	1		1				1		

Wound, lacerated	189		Amputation of upper extremity, all or part.	4	1	2		1		4		
			Colostomy	1				1		1		
			Enucleation	1					1			1
			Foreign body, removal of	1				1		1		
			Fragments, extraction of	1				1		1		
			Incision, exploratory	10		1		9		10		
			Iridectomy	1					1	1		
			Myorrhaphy	3		2		1		3		
			Nephrorrhaphy	1					1	1		
			Operations, other organs, not specified	1				1		1		
			Ostectomy, partial	1		1				1		
			Osteotomy	1				1		1		
			Plastic repair	2		1		1		2		
			Repair and suture	150		5		136	9	148		2
			Sequestrotomy	2		1		1		2		
			Tenoplasty	2				2		2		
			Tenorrhaphy	7				7		7		
	4	Abscess	Incision	4		3		1		4		
		Cellulitis	do	7	1			6		7		
			Suture	2		2				2		
	1	Gangrene, gaseous	Incision	1				1		1		
	17	Infection, pus	do	13				7	6	12		1
			Suture	4		4				4		
Wound, multiple	5		Decompression	1				1		1		
			Fragments, removal of	1				1		1		
			Suture	3				2	1	3		
	2	Not stated	Excision	1		1				1		
			Incision	1		1				1		
	1	Septicæmia	do	1		1				1		
Wound, penetrating	35		Enucleation, simple	1			1			1		
			Foreign body, removal of	3				2	1	2		1
			Fracture, removal of fragments	2		1			1	1		1
			Incision	1		1				1		
			Intestines, other operations	1				1			1	
			Iridectomy	1				1		1		
			Laparotomy	3		3					1	2
			Projectile, extraction of	20		3		10	7	19		1
			Suture	3				3		3		
	1	Cellulitis	Incision	1		1						1
	1	Infection, aerogenic	Laparotomy with drainage	1					1			1
	1	Osteomyelitis	Sequestrotomy	1		1						1
	2	Peritonitis	Laparotomy with drainage	1				1			1	
			Gastorrhaphy	1				1			1	
Wound, perforating	66		Amputation of lower extremity, all or part.	2	1			1		1		1
			Amputation of upper extremity, all or part.	2		2						2
			Artery, ligation of	1		1						1
			Arthrotomy	2	1			1		1		1
			Autoplasty	1				1		1		

TABLE XIII.—*Surgical operations performed on officers and enlisted men of the Army during the calendar year 1917*—Continued.

PART 2.—OPERATION FOR TRAUMATISM—Continued.

Traumatism.	Number.	Complication.	Operation.	Number.	Anesthetic.					Results.		
					Chloroform.	Ether.	Gas.	No anesthetic or not stated.	Local.	Recovered.	Died.	Incomplete.
Wound, perforating			Bone fragments, removal of	11		7		4		6	1	4
			Bone graft, lower	1				1		1		
			Cystorrhaphy	1				1		1		
			Excision	1		1						1
			Foreign body, removal of	4		4						4
			Fracture, reduction of, open by wiring	1		1				1		
			Fracture, removal of fragments	2		1			1	2		
			Gastorrhaphy	1		1					1	
			Incision	15	1	9		5		11		4
			Intestinal resection	2	1			1		1		1
			Myorrhaphy	1				1		1		
			Neurorrhaphy	1				1		1		
			Operations, other organs not specified	1				1		1		
			Ostectomy, partial	1		1						1
			Projectile, extraction of	9		4		5		9		
			Repair	1		1				1		
			Sequestrotomy	1		1						1
			Skin, grafting of	2		1		1		1		1
			Tenoplasty	1		1				1		
			Tenorrhaphy	1				1		1		
	1	Nerve complication	Chondrectomy	1				1		1		
	2	Osteomyelitis	Bone fragments, removal of	1				1		1		
			Ostectomy, partial	1				1		1		
Wound, punctured	50		Enucleation	1				1		1		
			Foreign body, removal of	7				4	3	7		
			Incision	35				30	5	35		
			Iridectomy	3				2	1	3		
			Joint, aspiration and injection, lower	1				1		1		
			Suture	3				3		3		
	10	Abscess	Amputation of lower extremity, all or part.	1				1		1		
			Incision	9		1		1	7	9		
	32	Cellulitis	do	30				3	27	30		
			Foreign body, removal of	2				1	1	2		
	19	Infection, pus	do	2	1	1				2		
			Incision	17				17		17		

Wounds and injuries of the eye, other	2	Periostitis	....do	2	2	....	......	....	....	2	......	......
	1	Septicæmia	....do	1	....	....	......	1	....	1	......	......
	1	....	Vitreous, foreign bodies, removal from	1	....	....	......	1	....	1	......	......
Total	2,393			....	64	624	66	1,327	312	2,204	41	148
Grand total	31,057	....	....	....	493	11,325	380	7,503	11,356	26,911	264	3,882

TABLE No. XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	10	283	4	287	297	297
2	Typhus fever	1	6	....	6	7	7
3	Relapsing fever (all)	....	34	1	35	35	35
4	Malarial fevers (all)	150	5,650	213	5,863	6,013	6,376
4a	Malarial fever, estivo-autumnal	16	578	38	616	632	687
4b	Malarial fever, mixed	....	4	1	5	5	5
4c	Malarial fever, quartan	4	67	1	68	72	72
4d	Malarial fever, tertian	94	3,175	135	3,310	3,404	3,706
4e	Malarial fever, undetermined	36	1,826	38	1,864	1,900	1,906
5	Smallpox	2	123	26	149	151	154
6	Measles (all)	447	48,745	1,278	50,023	50,470	50,767
6a	Measles, uncomplicated	439	45,285	1,206	46,491	46,930	47,227
6c	Measles with broncho-pneumonia	....	1,403	23	1,426	1,426	1,426
6d	Measles with lobar pneumonia	....	683	23	706	706	706
6f	Measles with other complications	8	1,374	26	1,400	1,408	1,408
7	Scarlet fever	29	2,194	12	2,206	2,235	2,235
8	Whooping cough	....	25	1	26	26	26
9	Diphtheria and results	29	1,225	6	1,231	1,260	1,261
10	Influenza (all)	1,562	38,166	598	38,764	40,326	40,512
14	Dysentery (all)	36	595	19	614	650	688
14a	Dysentery, bacillary	3	63	1	64	67	69
14b	Dysentery, balantidic	....	2	....	2	2	2
14c	Dysentery, entamœbic	21	257	9	266	287	291
14d	Dysentery (other protozoal)	....	2	1	3	3	3
14e	Dysentery, unclassified	12	271	8	279	291	323
15	Plague	....	5	....	5	5	5
17	Leprosy	....	3	....	3	3	5
18	Erysipelas	24	672	19	691	715	716
18b	Meningitis, cerebrospinal (epidemic)	13	1,004	63	1,067	1,080	1,082
19a	Chicken pox	14	267	49	316	330	374
19b	Diphtheria bacillus carrier	10	256	16	272	282	282
19c	German measles	224	9,246	66	9,312	9,536	9,732
19d	Hemoglobinuric fever (nonmalarial)	....	3	1	4	4	4
19e	Paratyphoid fever A	3	10	....	10	13	13
19f	Paratyphoid fever B	1	6	....	6	7	7
19g	Trench fever	5	19	....	19	24	24
19i	Typhoid bacillus carrier	....	14	....	14	14	14
19j	Typhoid vaccination	259	10,076	170	10,246	10,505	10,549
19k	Vaccinia	111	8,853	87	8,940	9,051	9,059
19l	Mumps	161	25,506	1,204	26,710	26,871	26,971
20	Septicæmia, general	4	49	....	49	53	53
20b	Pyaemia, surgical	....	6	....	6	6	6
21	Glanders	1	3	....	3	4	4
22	Anthrax	....	8	....	8	8	8
24	Tetanus	....	6	....	6	6	7
25	Trench foot	4	126	....	126	130	130
25a	Mycoses (others)	1	22	....	22	23	23
26	Pellagra	....	22	3	25	25	25
27	Beriberi	....	....	....	....	....	4
47	Rheumatic fever	79	5,217	120	5,337	5,416	5,423
11, 19, 18a, 18c, 20a	Infectious diseases (others)	74	2,153	74	2,227	2,301	2,536
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	133	6,755	473	7,228	7,361	7,381
29	Miliary tuberculosis, acute	1	37	....	37	38	39
30-35	Tuberculosis (others)	9	460	33	493	502	508

American and native troops), for the year 1917, at home and abroad.

ABSOLUTE NUMBERS.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
48	134	43	225	1	1	1	3	228	7	1	....	8	1	9
......	6	......	6	......	......	......	......	6	......	......	....	......	.....	1
17	7	4	28	......	......	......	......	28	......	......	....	......	.....	......
1,463	2,123	504	4,090	50	9	18	77	4,167	100	6	....	106	5	111
47	46	15	108	4	......	1	5	113	2	......	....	2	.....	2
1	1	1	3	......	1	......	1	4	......	......	....	......	.....	......
23	28	1	52	......	......	1	1	53	1	......	....	1	.....	1
1,146	864	229	2,239	25	5	12	42	2,281	36	2	....	38	1	39
246	1,184	258	1,688	21	3	4	28	1,716	61	4	....	65	4	69
55	35	30	120	7	......	19	26	146	......	......	....	......	.....	......
11,166	21,273	13,989	46,428	216	65	864	1,145	47,573	613	646	21	1,280	36	1,316
10,403	19,660	13,013	43,076	209	63	810	1,082	44,158	590	614	18	1,222	34	1,256
274	700	380	1,354	3	......	15	18	1,372	12	10	1	23	.....	23
110	377	193	680	1	1	21	23	703	......	1	....	1	.....	1
379	536	403	1,318	3	1	18	22	1,340	11	21	2	34	2	36
1,042	494	419	1,955	3	......	8	11	1,966	52	107	8	167	.....	167
11	8	5	24	......	......	1	1	25	......	1	....	1	.....	1
662	373	122	1,157	3	1	2	6	1,163	40	6	1	47	.....	47
11,004	12,303	8,575	31,882	143	56	167	366	32,248	2,067	2,338	117	4,522	96	4,618
277	136	60	473	5	1	5	11	484	33	7	....	40	1	41
21	19	9	49	......	......	1	1	50	3	......	....	3	.....	3
......	......	......	......	......	......	......	......	......	......	......	....	......	.....	......
151	28	12	191	3	......	1	4	195	10	......	....	10	.....	10
1	......	1	2	......	......	......	......	2	......	......	....	......	1	1
104	89	38	231	2	1	3	6	237	20	7	....	27	.....	27
3	2	......	5	......	......	......	......	5	......	......	....	......	.....	......
......	2	1	3	......	......	......	......	3	......	......	....	......	.....	......
298	219	123	640	3	1	15	19	659	10	10	1	21	.....	21
231	346	340	917	5	4	45	54	971	42	18	3	63	3	66
133	64	45	242	17	1	27	45	287	6	9	1	16	.....	16
55	67	124	246	......	......	15	15	261	10	......	....	10	.....	10
2,979	3,296	2,649	8,924	26	13	19	58	8,982	114	40	5	159	4	163
1	......	2	3	......	1	......	1	4	......	......	....	......	.....	......
4	5	......	9	......	......	......	......	9	1	......	....	1	.....	1
1	......	......	1	......	......	......	......	1	5	......	....	5	.....	5
......	......	......	......	......	......	......	......	......	17	2	....	19	.....	19
3	8	2	13	......	......	......	......	13	......	......	....	......	.....	......
4,474	2,033	3,124	9,631	74	22	52	148	9,779	74	4	3	81	1	82
4,072	2,820	1,667	8,559	53	10	18	81	8,640	27	14	....	41	2	43
6,760	10,109	4,366	21,235	86	175	229	490	21,725	1,887	1,373	72	3,332	415	3,747
23	14	10	47	......	......	......	......	47	1	1	....	2	.....	2
5	1	......	6	......	......	......	......	6	......	......	....	......	.....	......
1	1	1	3	......	......	......	......	3	......	......	....	......	.....	......
5	2	1	8	......	......	......	......	8	......	......	....	......	.....	......
3	2	......	5	......	......	......	......	5	......	......	....	......	.....	......
2	......	......	2	......	......	......	......	2	103	17	....	120	.....	120
9	7	4	20	......	......	......	......	20	......	......	....	......	.....	......
3	12	5	20	2	......	1	3	23	......	......	....	......	.....	......
......	......	......	......	......	......	......	......	......	......	......	....	......	.....	......
2,055	1,767	913	4,735	19	28	37	84	4,819	235	108	6	349	17	366
131	460	762	1,353	2	4	36	42	1,395	18	1	5	24	1	25
1,913	2,911	1,554	6,378	105	57	259	421	6,799	98	31	5	134	15	149
9	16	11	36	......	......	......	......	36	......	......	....	......	.....	......
141	146	127	414	7	5	13	25	439	17	7	1	25	1	26

TABLE No. XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transport, and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever						
2	Typhus fever						
3	Relapsing fever (all)				1		1
4	Malarial fevers (all)	5	1	6	59	5	64
4a	Malarial fever, estivo-autumnal	1		1	1		1
4b	Malarial fever, mixed						
4c	Malarial fever, quartan				2		2
4d	Malarial fever, tertian	2		2	38	3	41
4e	Malarial fever, undetermined	2	1	3	18	2	20
5	Smallpox				2		2
6	Measles (all)	1	3	4	799	52	851
6a	Measles, uncomplicated	1	3	4	763	50	813
6c	Measles with broncho-pneumonia				20	2	22
6d	Measles with lobar pneumonia				2		2
6f	Measles with other complications				14		14
7	Scarlet fever				56	1	57
8	Whooping cough						
9	Diphtheria and results				17		17
10	Influenza (all)	9	26	35	1,133	39	1,172
14	Dysentery (all)	1		1	19	1	20
14a	Dysentery, bacillary				10		10
14b	Dysentery, balantidic						
14c	Dysentery, entamœbic	1		1	4		4
14d	Dysentery (other protozoal)						
14e	Dysentery, unclassified				5	1	6
15	Plague						
17	Leprosy						
18	Erysipelas				6		6
18b	Meningitis, cerebrospinal (epidemic)				21	5	26
19a	Chicken pox				6	1	7
19b	Diphtheria bacillus carrier					1	1
19c	German measles				106	3	109
19d	Hemoglobinuric fever (nonmalarial)						
19e	Paratyphoid fever A						
19f	Paratyphoid fever B						
19g	Trench fever						
19i	Typhoid bacillus carrier				1		1
19j	Typhoid vaccination	1		1	133		133
19k	Vaccinia	1		1	227	4	231
19l	Mumps				649	133	782
20	Septicæmia, general						
20b	Pyæmia, surgical						
21	Glanders						
22	Anthrax						
24	Tetanus						
25	Trench foot				4		4
25a	Mycoses (others)				2		2
26	Pellagra				2		2
27	Beriberi						
47	Rheumatic fever	4	3	7	83	10	93
11, 19, 18a, 18c, 20a	Infectious disease (others)				11	3	14
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	4	1	5	128	23	151
29	Miliary tuberculosis, acute				1		1
30-35	Tuberculosis (others)				14	4	18

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	50	....	50	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	2	1	3	3	....	....	....	....
471	123	594	33	2	35	886	42	9	51	312
68	32	100	[illegible]	1	10	389	2	2	4	51
....	....	....	....	....	....	1	....	....	....	....
6	....	6	....	....	....	6	....	....	....	....
386	88	474	24	1	25	448	36	7	43	259
11	3	14	....	....	....	42	4	....	4	2
1	....	1	....	....	....	....	....	....	....	3
23	2	25	138	40	178	76	103	190	293	4
22	2	24	126	35	161	75	103	190	293	4
....	....	....	5	3	8	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1	....	1	7	2	9	....	....	....	....	....
1	....	1	13	....	13	2	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	4	....	4	....	....	....	....	1
29	17	46	228	54	282	363	91	69	160	26
51	6	57	9	....	9	2	30	....	30	8
....	....	....	1	....	1	....	....	....	....	2
2	....	2	....	....	....	....	....	....	....	....
44	5	49	5	....	5	2	1	....	1	3
....	....	....	....	....	....	....	....	....	....	....
5	1	6	3	....	3	....	29	....	29	3
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	2
2	....	2	1	....	1	2	....	....	....	1
....	....	....	2	1	3	1	....	....	....	2
2	....	2	1	3	4	....	14	....	14	30
....	....	....	....	....	....	....	....	....	....	....
3	....	3	47	1	48	7	47	145	192	4
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
6	....	6	200	21	221	24	12	22	34	10
6	....	6	14	....	14	5	5	1	6	2
92	59	151	191	107	298	7	....	1	1	[illegible]
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	2	2	2
11	2	13	19	4	23	16	3	1	4	3
683	28	711	6	....	6	76	1	....	1	234
52	6	58	40	7	47	19	....	4	4	16
....	....	....	....	....	....	....	....	....	....	1
1	2	3	1	1	2	5	1	....	1	5

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	68	9,188	869	10,057	10,125	10,301
37a	Syphilis, hereditary	....	23	....	23	23	23
37b	Syphilis, primary	15	2,475	293	2,768	2,783	2,861
37c	Syphilis, secondary	34	5,358	380	5,738	5,772	5,853
37d	Syphilis, tertiary	19	1,332	196	1,528	1,547	1,564
38a	Chancroid	13	8,408	1,079	9,487	9,500	9,588
38b	Gonococcus infection	138	49,307	3,104	52,411	52,549	52,873
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	3	74	....	74	77	77
39–45	Cancer and other malignant tumors	7	96	....	96	103	103
46	Benign tumors	26	743	39	782	808	821
48	Arthritis	74	3,493	173	3,666	3,740	3,750
48a	Gout	3	21	....	21	24	24
49	Scurvy	....	5	....	5	5	5
50	Diabetes mellitus	17	104	2	106	123	123
51a	Diseases of the thyroid gland (goiter simple excepted).	7	612	5	617	624	624
51b, 52, 53b, 116	Diseases of the ductless glands (thyroid excepted).	....	44	1	45	45	45
53a	Leukemia	....	5	....	5	5	5
54	Anæmia	6	121	4	125	131	132
55a	Purpura rheumatica	....	5	....	5	5	5
56	Inebriety, drug addiction	9	432	18	450	459	459
56a	Alcoholism	35	1,762	38	1,800	1,835	1,839
57–59	Poisoning, chronic	....	26	1	27	27	28
55, 88	General diseases (others)	47	3,201	158	3,359	3,406	3,428
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	60	3	63	63	63
62	Locomotor ataxia	2	41	....	41	43	43
63	Diseases of the spinal cord (others)	3	124	7	131	134	134
64	Apoplexy	5	22	....	22	27	27
66	Paralysis, cause not specified	6	237	9	246	252	254
69	Epilepsy	12	1,676	94	1,770	1,782	1,786
72	Chorea	....	78	....	78	78	78
73	Hysteria and results (psychoses excepted)	38	778	36	814	852	867
73a	Neuralgia	30	1,116	60	1,176	1,206	1,213
73b	Neuritis	41	687	21	708	749	760
74	Neurasthenia	110	956	12	968	1,078	1,082
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	26	1,284	49	1,333	1,359	1,367
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane	....	31	1	32	32	32
68a	Constitutional psychopathic states	9	485	6	491	500	501
68b	Dementia præcox	12	891	30	921	933	934
68c	Mental deficiency	....	1,592	46	1,638	1,638	1,640
68d	Psychasthenia	10	98	....	98	108	110
68e	Psychoneurosis	5	242	5	247	252	252
56b	Psychoses (alcoholic)	2	156	4	160	162	162
68f	Psychoses (nonalcoholic)	27	480	19	499	526	529
68	Mental alienation (others)	10	134	5	139	149	151

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
3,027	2,886	1,842	7,755	291	88	340	719	8,474	353	73	4	430	11	441
11	5	2	18	......	......	......	....	18	3	......	....	3	.....	3
812	795	492	2,099	105	33	126	264	2,363	154	23	1	178	6	184
1,769	1,707	1,071	4,547	113	46	132	291	4,838	155	40	3	198	3	201
435	379	277	1,091	73	9	82	164	1,255	41	10	....	51	2	53
3,292	2,530	936	6,758	289	197	208	694	7,452	402	41	5	448	32	480
15,789	17,666	11,535	44,990	1,278	567	825	2,670	47,660	1,281	325	22	1,628	48	1,676
25	28	15	68	......	......	......	....	68	1	......	....	1	.....	1
46	28	9	83	......	......	......	....	83	2	1	....	3	.....	3
303	229	109	611	10	......	13	23	664	18	7	....	25	2	27
999	1,160	971	3,130	49	22	68	139	3,269	141	67	4	212	8	220
8	5	4	17	......	......	......	....	17	......	......	....	....	.....	....
3	....	2	5	......	......	......	....	5	......	......	....	....	.....	....
40	40	19	99	1	......	......	1	100	2	......	....	2	.....	2
111	352	130	593	......	......	5	5	598	2	2	....	4	.....	4
11	13	13	37	1	......	......	1	38	2	......	1	3	.....	3
1	3	1	5	......	......	......	....	5	......	......	....	....	.....	....
38	44	25	107	3	......	......	3	110	1	6	....	7	.....	7
4	....	1	5	......	......	......	....	5	......	......	....	....	.....	....
104	72	232	408	9	1	7	17	425	5	1	....	6	.....	6
828	373	133	1,334	11	......	3	14	1,348	58	11	1	70	2	72
5	11	4	20	......	......	......	....	20	1	......	....	1	.....	1
1,055	1,039	700	2,794	51	33	23	107	2,901	122	99	4	225	19	244
16	26	11	53	......	......	3	3	56	1	2	....	3	.....	3
11	14	11	36	......	......	......	....	36	3	1	....	4	.....	4
26	53	38	117	4	1	2	7	124	1	......	....	1	.....	1
6	8	6	20	......	......	......	....	20	......	......	....	....	.....	....
70	94	45	209	3	......	3	6	215	9	7	....	16	.....	16
589	538	443	1,570	29	8	49	86	1,656	46	8	1	55	3	58
34	28	12	74	......	......	......	....	74	1	2	....	3	.....	3
229	227	183	639	8	3	16	27	666	54	26	2	82	3	85
464	304	228	996	34	......	13	47	1,043	31	21	....	52	2	54
275	189	151	615	4	5	5	14	629	15	9	1	25	3	28
322	219	276	817	3	1	2	6	823	23	8	....	31	.....	31
461	412	330	1,203	15	5	14	34	1,237	21	17	1	39	5	44
15	3	7	25	1	......	......	1	26	1	1	....	2	.....	2
172	215	81	468	2	2	......	4	472	2	......	....	2	1	3
388	211	195	794	10	1	12	23	817	22	4	....	26	.....	26
415	719	362	1,526	15	2	21	38	1,564	22	8	....	30	2	32
26	38	28	92	......	......	......	....	92	2	......	....	2	.....	2
61	89	79	229	1	1	2	4	233	4	......	....	4	.....	4
56	33	47	136	2	......	1	3	139	4	......	....	4	1	5
150	138	159	447	12	......	6	18	465	9	2	....	11	.....	11
58	29	30	117	3	......	1	4	121	3	......	....	3	.....	3

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transport, and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	7	3	10	248	33	281
37a	Syphilis, hereditary						
37b	Syphilis, primary				67	13	80
37c	Syphilis, secondary	4	1	5	157	6	163
37d	Syphilis, tertiary	3	2	5	24	14	38
38a	Chancroid	3	3	6	309	15	324
38b	Gonococcus infection	3	3	6	999	115	1,114
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets				1		1
39–45	Cancer and other malignant tumors				4		4
46	Benign tumors				17		17
48	Arthritis	2	3	5	66	9	75
48a	Gout				1		1
49	Scurvy						
50	Diabetes mellitus		1	1			
51a	Diseases of the thyroid gland (goiter simple excepted)				7		7
51b, 52, 53b, 116	Diseases of the ductless glands (thyroid excepted)				3		3
53a	Leukemia						
54	Anæmia				3		3
55a	Purpura rheumatica						
56	Inebriety, drug addiction				4	1	5
56a	Alcoholism	1		1	28		28
57–59	Poisoning, chronic				1		1
55, 88	General diseases (others)	6	2	8	67	8	75
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple				4		4
62	Locomotor ataxia						
63	Diseases of the spinal cord (others)				2		2
64	Apoplexy						
66	Paralysis, cause not specified				5	2	7
69	Epilepsy				30	3	33
72	Chorea						
73	Hysteria and results (psychoses excepted)				23		23
73a	Neuralgia				23	1	24
73b	Neuritis				6	2	8
74	Neurasthenia		2	2	16	1	17
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	1		1	11	3	14
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane						
68a	Constitutional psychopathic states				2		2
68b	Dementia præcox				19	1	20
68c	Mental deficiency				13	1	14
68d	Psychasthenia				2		2
68e	Psychoneurosis				3		3
56b	Psychoses (alcoholic)				4		4
68f	Psychoses (nonalcoholic)	2		2	8		8
68	Mental alienation (others)				13		13

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
525	62	587	77	41	118	146	56	33	89	87
			2		2					
88	5	93	16	5	21	27	40	22	62	16
332	49	381	37	30	67	83	12	11	23	58
105	8	113	22	6	28	36	4		4	13
451	307	758	117	28	145	322	16	26	42	46
835	189	1,024	316	79	395	536	63	49	112	212
1		1				3				
2		2				4				
22	7	29	26	7	33	12	1		1	12
24	2	26	39	12	51	20	2	2	4	6
2		2	1		1					
1		1				2				
4		4	3		3	1				
1		1								
2	1	3	1		1	1		1	1	
6		6	4		4	4				
188	15	203	67	7	74	74	2		2	2
2	1	3	1		1	1				1
38	14	52	53	8	61	18	2	1	3	19
1		1								
3		3	1		1					
			2		2					
3		3	1	1	2	3		2	2	
6	2	8	5		5	10		1	1	3
1		1								
5	4	9	12	2	14	17	5	7	12	3
18	7	25	16	3	19	11		3	3	4
5		5	11	2	13	25	6		6	5
30	3	33	7		7	55	1	2	3	1
10	5	15	9	2	11	11	2		2	6
						4				
2		2	7	1	8	4				1
22	3	25	17	3	20	13				1
3		3	12	5	17	8				2
1		1				1				2
	1	1	2		2	4				
6		6	1		1	5				
1		1	4	1	5	7	1	1	2	1
1		1		1	1		2		2	

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	126	4,467	162	4,629	4,755	4,830
75b	Trachoma	1	470	6	476	477	481
75c	Refractive errors	21	642	11	653	674	674
75e	Iritis	20	306	17	323	343	343
75f	Keratitis	4	306	14	320	324	325
75g	Choroiditis	1	45	....	45	46	46
75h	Retinitis	3	64	10	74	77	77
75i	The eyes and annexa (other diseases of)	32	1,654	83	1,737	1,769	1,786
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	6	260	3	263	269	269
76b	Otitis media	103	6,387	104	6,491	6,594	6,602
76c	Ears, other diseases of	10	549	17	566	576	594
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	6	265	6	271	277	277
86b	Deviation of nasal septum or spurs	114	1,251	6	1,257	1,371	1,373
86c	Sinusitis	95	951	29	980	1,075	1,076
86d	Nasal fossæ, other diseases of	274	8,023	160	8,183	8,457	8,637
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	305	5,154	80	5,234	5,539	5,546
100	Pharynx, diseases of	462	8,922	229	9,151	9,613	9,636
100a	Tonsils, diseases of	1,250	45,682	863	46,545	47,795	47,841
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	2	50	1	51	53	53
78	Endocarditis, acute	1	85	8	93	94	94
79	Valvular heart diseases	26	2,407	85	2,492	2,518	2,521
79a	Heart, other organic diseases of	27	1,145	73	1,218	1,245	1,252
80	Angina pectoris	6	74	5	79	85	85
81a	Aneurysm	....	12	....	12	12	13
81	Arteries, other diseases of	45	84	3	87	132	132
82	Embolism and thrombosis	5	29	....	29	34	34
83a	Hemorrhoids	173	4,289	246	4,535	4,708	4,720
83b	Varicocele	17	2,253	42	2,295	2,312	2,313
83	Veins, other diseases of	21	1,135	30	1,165	1,186	1,187
84a	Status lymphaticus	....	1	2	3	3	3
84	Lymphatic system, other diseases of	62	2,697	112	2,809	2,871	2,930
85a	Cardiac arrhythmias	3	44	....	44	47	47
85b	Cardiac murmur, not organic	1	22	1	23	24	24
85c	Cardiac disorders, functional	2	119	3	122	124	124
85d	Hemorrhage	11	279	12	291	302	309
85	Circulatory system, other diseases of	12	658	34	692	704	707
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	1,705	48,316	1,311	49,627	51,332	51,613
91	Broncho pneumonia	47	1,609	125	1,734	1,781	1,782
92	Pneumonia, lobar	118	6,732	810	7,542	7,660	7,680
92b	Pneumonia, unclassified	2	52	3	55	57	57
93	Pleurisy	98	3,288	183	3,471	3,569	3,580
95	Gangrene of lung	....	5	1	6	6	6
98	Abscess of lung	....	9	....	9	9	9
96, 97	Respiratory systems, other diseases of	38	1,347	70	1,417	1,455	1,471

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
1,658	1,257	1,177	4,092	38	9	64	111	4,203	126	50	5	181	11	192
92	241	126	459	2	1	2	5	464	1	5	....	6	.....	6
192	249	109	550	7	2	......	9	559	32	15	....	47	.....	47
88	103	49	240	5	2	7	14	254	19	6	....	25	.....	25
97	116	71	284	3	2	7	12	296	8	5	1	14	.....	14
18	19	4	41	......	......	......	....	41	....	......	....	....	.....	....
23	23	6	52	8	......	2	10	62	1	1	....	2	.....	2
502	656	318	1,476	39	15	17	71	1,547	52	23	2	77	2	79
70	141	32	243	1	......	1	2	245	7	7	....	14	.....	14
1,902	2,706	1,196	5,804	26	10	36	72	5,876	198	144	11	353	6	359
162	193	98	453	7	3	2	12	465	22	4	....	26	.....	26
104	89	16	209	2	2	......	4	213	13	9	....	22	.....	22
558	356	199	1,113	4	......	......	4	1,117	16	2	....	18	.....	18
351	292	169	812	9	3	9	21	833	48	22	1	71	1	72
3,146	2,318	1,717	7,181	61	21	50	132	7,313	180	234	44	458	.....	458
1,948	1,345	1,280	4,573	25	4	31	60	4,633	237	186	18	441	7	448
3,503	2,474	1,955	7,932	110	12	42	164	8,096	335	180	13	528	1	529
19,413	14,721	8,217	42,351	334	105	231	670	43,021	1,151	425	33	1,609	39	1,648
25	9	11	45	......	......	1	1	46	....	1	....	1	.....	1
28	29	24	81	......	4	3	7	88	1	......	....	1	.....	1
695	998	602	2,295	32	5	43	80	2,375	34	20	1	55	2	57
374	449	234	1,057	23	15	22	60	1,117	28	29	....	57	7	64
30	26	13	69	1	1	3	5	74	2	1	....	3	.....	3
3	3	4	10	......	......	......	....	10	1	......	....	1	.....	1
29	30	12	71	......	1	1	2	73	6	2	....	8	.....	8
15	6	4	25	......	......	......	....	25	2	......	....	2	.....	2
1,353	1,441	777	3,571	86	20	86	192	3,763	301	138	20	459	12	471
760	864	404	2,028	7	6	20	33	2,061	54	40	2	96	1	97
351	401	275	1,030	6	5	11	22	1,052	26	20	2	48	5	53
1	....	....	1	1	......	1	2	3	....	......	....	....	.....	....
1,162	832	224	2,218	50	14	13	77	2,295	101	35	1	137	5	142
15	14	6	35	......	......	......	....	35	....	......	....	....	.....	....
8	4	5	17	1	......	......	1	18	....	......	....	....	.....	....
44	36	26	106	......	......	1	1	107	....	5	....	5	.....	5
102	89	69	260	2	3	4	9	269	4	4	....	8	1	9
224	207	157	588	12	7	12	31	619	16	16	....	32	1	33
15,099	15,217	10,105	40,421	333	101	378	812	41,233	2,942	2,514	163	5,619	308	5,927
356	760	256	1,372	17	4	75	96	1,468	101	73	8	182	15	197
1,700	3,096	1,462	6,258	142	65	499	706	6,964	155	111	10	276	59	335
6	29	9	44	1	......	2	3	47	3	4	....	7	.....	7
1,087	1,130	606	2,823	52	9	63	124	2,947	186	125	6	317	32	349
3	2	....	5	......	......	......	....	5	....	......	....	....	.....	....
2	3	2	7	......	......	......	....	7	....	2	....	2	.....	2
371	421	390	1,182	14	7	32	53	1,235	71	28	3	102	1	103

TABLE XIV.—*Admissions to sick report, total Army (including, officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transport, and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	16	2	18	64	5	69
75b	Trachoma						
75c	Refractive errors				10		10
75e	Iritis	2		2	11		11
75f	Keratitis				4		4
75g	Choroiditis				2		2
75h	Retinitis				3		3
75i	The eyes and annexa (other diseases of)	3		3	32	2	34
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis				3		3
76b	Otitis media	5		5	108	4	112
76c	Ears, other diseases of		1	1	13		13
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids				6		6
86b	Deviation of nasal septum or spurs				6		6
86c	Sinusitis	3		3	28	1	29
86d	Nasal fossæ, other diseases of	13	2	15	158	6	164
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	3		3	109	6	115
100	Pharynx, diseases of				193	15	208
100a	Tonsils, diseases of	54	6	60	733	30	763
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis				3		3
78	Endocarditis, acute				2	1	3
79	Valvular heart diseases				37		37
79a	Heart, other organic diseases of				16	1	17
80	Angina pectoris				2		2
81a	Aneurysm						
81	Arteries, other diseases of				2		2
82	Embolism and thrombosis				1		1
83a	Hemorrhoids	3	2	5	82	8	90
83b	Varicocele	1		1	22	1	23
83	Veins, other diseases of	1		1	15	1	16
84a	Status lymphaticus						
84	Lymphatic system, other diseases of	7	4	11	40	4	44
85a	Cardiac arrhythmias	2		2	2		2
85b	Cardiac murmur, not organic				2		2
85c	Cardiac disorders, functional				1		1
85d	Hemorrhage				6	1	7
85	Circulatory system, other diseases of	1		1	9		9
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	75	17	92	1,099	66	1,165
91	Broncho-pneumonia				47	7	54
92	Pneumonia, lobar	11		11	146	32	178
92b	Pneumonia, unclassified				1		1
93	Pleurisy	5	2	7	92	19	111
95	Gangrene of lung						
98	Abscess of lung						
96, 97	Respiratory systems, other diseases of	1		1	25	4	29

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
32	13	45	43	20	63	39	5	4	9	66
3	1	4	1	....	1	1	....	....	....	4
17	2	19	8	....	8	10	....	....	....	....
6	....	6	5	3	8	17	....	....	....	....
2	1	3	1	1	2	1	....	....	....	1
....	....	....	1	....	1	1	....	....	....	....
....	....	....	3	....	3	4	....	....	....	....
22	4	26	23	4	27	21	5	3	8	9
....	....	....	....	1	1	....	....	....	....	....
31	9	40	45	13	58	41	1	....	1	7
40	3	43	8	1	9	9	11	1	12	5
....	2	2	28	....	28	....	....	....	....	....
11	1	12	35	1	36	68	....	2	2	....
3	....	3	11	6	17	23	1	....	1	....
80	5	85	92	15	107	41	126	15	141	39
7	2	9	13	5	18	8	1	....	1	6
81	7	88	155	42	197	33	9	....	9	14
286	46	332	407	72	479	242	6	15	21	25
1	....	1	....	....	....	....	....	....	....	....
1	....	1	....	....	....	....	....	....	....	....
6	2	8	13	1	14	1	2	1	3	....
4	3	7	7	2	9	4	3	....	3	4
....	....	....	....	....	....	....	....	....	....	....
1	....	1	....	....	....	....	1	....	1	....
1	....	1	1	1	2	1	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
60	17	77	59	15	74	55	1	2	3	9
39	3	42	26	4	30	41	1	....	1	....
18	....	18	13	2	15	10	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
80	7	87	68	15	83	147	20	15	35	24
1	....	1	3	....	3	1	....	....	....	....
....	....	....	....	....	....	3	....	....	....	....
3	1	4	2	1	3	2	....	....	....	....
3	1	4	1	....	1	1	1	....	1	6
20	2	22	8	....	8	....	1	....	1	2
337	25	362	439	83	522	326	15	51	66	215
2	2	4	5	5	10	1	....	....	....	1
8	3	11	27	10	37	6	....	....	....	20
....	....	....	....	....	....	....	....	....	....	....
19	3	22	14	3	17	18	2	5	7	4
....	....	....	....	1	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
12	8	20	19	4	23	6	5	1	6	10

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.	Causes of admission to sick report.	United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	110	2,492	82	2,574	2,684	2,704
101	Esophagus, diseases of	....	7	1	8	8	8
102	Ulcer of the stomach	28	305	5	310	338	339
103	Stomach, diseases of (ulcer and cancer excepted)	228	6,768	229	6,997	7,225	7,285
106	Ankylostomiasis	3	350	....	350	353	381
107a	Intestinal parasites, others	7	298	9	307	314	336
108	Appendicitis	254	6,221	173	6,394	6,648	6,655
109	Hernia	144	5,459	163	5,622	5,766	5,776
109a	Intestinal obstruction	6	95	6	101	107	107
105, 110	Intestines, other diseases of	1,128	30,617	853	31,470	32,598	33,131
112	Hydatid tumor of liver	....	1	....	1	1	1
113	Cirrhosis of the liver	5	31	....	31	36	36
114	Cholelithiasis	7	53	....	53	60	60
115	Cholecystitis	52	541	13	554	606	608
115a	Liver, other diseases of	47	1,281	10	1,291	1,338	1,357
117	Peritonitis, acute diffuse	....	16	1	17	17	17
117a	Peritonitis, acute local	....	13	....	13	13	13
117b	Peritonitis, chronic	....	7	1	8	8	8
117c	Peritoneal adhesions	5	220	3	223	228	228
118	Other diseases of the digestive system	10	148	4	152	162	166
118a	Pancreatitis	3	2	....	2	5	5
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	10	306	19	325	335	337
120	Nephritis, chronic (Bright's disease)	39	457	20	477	516	517
122	Kidney and annexa, other diseases of	33	456	17	473	506	509
123	Calculi, of urinary passages	35	263	4	267	302	305
124	Bladder, diseases of	16	1,983	104	2,087	2,103	2,107
125	Urethra, diseases of	13	524	27	551	564	565
126	Prostate, diseases of	8	123	2	125	133	133
127	Male genital organs, diseases of (nonvenereal)	27	2,782	109	2,891	2,918	2,955
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	1	14	....	14	15	15
143	Furuncle	114	5,519	96	5,615	5,729	5,881
144	Acute abscess	87	3,592	71	3,663	3,750	3,820
144a	Cellulitis	72	3,015	43	3,058	3,130	3,193
145	Skin and annexa, other diseases of	190	11,218	262	11,480	11,670	11,852
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	5	218	12	230	235	235
146a	Bones, other diseases of (tuberculosis excepted)	13	563	22	585	598	603
147	Joint, diseases of (rheumatism and tuberculosis excepted)	25	989	28	1,017	1,042	1,052
149	Pes planus	23	5,032	133	5,165	5,188	5,190
149a	Organs of locomotion, other diseases of	113	6,616	186	6,802	6,915	6,950
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	61	4,912	205	5,117	5,178	5,185
189	Not specified or ill-defined diseases	407	22,124	902	23,026	23,433	23,550
	Total for diseases	12,782	544,435	19,209	563,644	576,426	580,891

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
917	766	451	2,134	39	1	15	55	2,189	152	40	2	194	2	196
2	2	2	6					6						
76	99	92	267	3		1	4	271	17	1	3	21		21
2,489	2,286	1.053	5,828	65	29	34	128	5,956	282	114	9	405	10	415
146	131	41	318					318	6	1		7		7
116	75	33	224	4		1	5	229	13	7		20		20
2,066	2,389	910	5,365	43	9	31	83	5,448	221	136	12	369	12	381
1,753	2,128	1,018	4,899	49	18	72	139	5,038	226	126	9	361	6	367
34	30	16	80	3			3	83	4	6		10	1	11
12,067	10,961	2,802	25,830	290	69	85	444	26,274	1,301	499	26	1,826	35	1,861
17	9	4	30					30						
21	13	11	45					45	2	2		4		4
209	182	82	473	2		3	5	478	12	7	1	20		20
497	418	161	1,076	4		4	8	1,084	40	7	1	48		48
4	7	2	13					13					1	1
3	5	4	12					12	1			1		1
4	1	2	7		1		1	8						
68	89	46	203					203	7	1		8		8
45	46	33	124	3	1		4	128	5	5	1	11		11
1			1					1						
102	95	60	257	3		7	10	267	17	8		25		25
152	145	91	388	6		6	12	400	10	10		20	3	23
163	145	85	393	8	3	1	12	405	19	8		27		27
94	93	45	232	3			3	235	6	3		9		9
650	744	375	1,769	32	6	20	58	1,827	32	37		69	5	74
183	155	113	451	6	3	9	18	469	15	3		18	2	20
35	47	20	102		2		2	104	6	5		11		11
1,087	888	463	2,438	44	16	26	86	2,524	114	72	2	188	6	194
4	7	3	14					14						
2,457	1,504	831	4,792	18	3	7	28	4,820	170	67	2	239	5	244
1,460	1,118	604	3,182	16	8	14	38	3,220	150	49	2	201	7	208
1,217	895	353	2,465	10	2	3	15	2,480	152	60	2	214		214
3,915	3,622	1,894	9,431	69	31	56	156	9,587	573	192	11	776	11	787
69	66	61	196	3	1	4	8	204	6	1		7	1	8
155	207	146	508	8	2	9	19	527	23	4		27		27
280	335	254	869	6	6	14	26	895	41	17		58		58
1,560	1,864	1,161	4,585	43	19	60	122	4,707	114	135	1	250	1	251
2,007	2,388	1,449	5,844	64	17	49	130	5,974	246	138	8	392	9	401
1,948	1,784	759	4,491	97	37	25	159	4,650	98	50	3	151	2	153
8,061	6,712	4,960	19,733	265	60	351	676	20,409	799	376	25	1,200	67	1,267
182,396	187,147	111,891	481,434	5,633	2,193	6,171	13,997	495,431	19,602	12,169	759	32,530	1,442	33,972

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transport, and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	....	....	....	54	2	56
101	Esophagus, diseases of	....	....	....	....	....	....
102	Ulcer of the stomach	....	....	....	3	1	4
103	Stomach, diseases of (ulcer and cancer excepted)	4	1	5	157	11	168
106	Ankylostomiasis	....	....	....	4	....	4
107a	Intestinal parasites, others	....	....	....	11	....	11
108	Appendicitis	5	1	6	132	5	137
109	Hernia	1	....	1	98	3	101
109a	Intestinal obstruction	....	....	....	2	....	2
105, 110	Intestines, other diseases of	19	4	23	716	21	737
112	Hydatid tumor of liver	....	....	....	....	....	....
113	Cirrhosis of the liver	....	....	....	....	....	....
114	Cholelithiasis	....	....	....	1	....	1
115	Cholecystitis	1	....	1	8	....	8
115a	Liver, other diseases of	....	....	....	52	1	53
117	Peritonitis, acute diffuse	....	....	....	....	....	....
117a	Peritonitis, acute local	....	....	....	....	....	....
117b	Peritonitis, chronic	....	....	....	....	....	....
117c	Peritoneal adhesions	....	....	....	2	....	2
118	Other diseases of the digestive system	8	....	8	3	....	3
118a	Pancreatitis	....	....	....	....	....	....
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	1	....	1	7	....	7
120	Nephritis, chronic (Bright's disease)	....	....	....	6	2	8
122	Kidney and annexa, other diseases of	1	....	1	9	1	10
123	Calculi, of urinary passages	....	....	....	8	....	8
124	Bladder, diseases of	2	....	2	30	5	35
125	Urethra, diseases of	2	....	2	12	1	13
126	Prostate, diseases of	....	....	....	1	....	1
127	Male genital organs, diseases of (nonvenereal)	....	....	....	65	2	67
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	....	....	....	....	....	....
143	Furuncle	9	....	9	97	1	98
144	Acute abscess	3	1	4	66	2	68
144a	Cellulitis	4	....	4	46	5	51
145	Skin and annexa, other diseases of	5	3	8	229	1	230
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	....	....	....	6	2	8
146a	Bones, other diseases of (tuberculosis excepted)	....	....	....	11	1	12
147	Joint, diseases of (rheumatism and tuberculosis excepted)	....	....	....	26	2	28
149	Pes planus	1	2	3	86	2	88
149a	Organs of locomotion, other diseases of	3	2	5	118	4	122
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	....	....	....	64	5	69
189	Not specified or ill-defined diseases	22	1	23	452	47	499
	Total for diseases	348	102	450	11,139	821	11,960

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
52	10	62	37	13	50	21	6	1	7	13
....	....	....	....	1	1	1	....	....	....	....
4	....	4	1	....	1	9	....	....	....	1
199	69	268	75	10	85	100	2	1	3	57
17	....	17	....	....	....	4	9	9	18	10
29	2	31	7	2	9	7	4	....	4	18
119	39	158	151	33	184	80	2	1	3	4
28	9	37	32	6	38	40	1	3	4	6
1	....	1	....	2	2	2	....	....	....	....
891	125	1,016	757	224	981	578	78	66	144	389
....	....	....	....	....	....	1	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
....	....	....	....	....	....	3	....	....	....	....
19	4	23	5	4	9	15	....	....	....	2
63	....	63	17	1	18	25	10	5	15	4
1	....	1	....	....	....	2	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
3	3	6	2	....	2	2	....	....	....	....
....	....	....	1	....	1	1	1	....	1	3
1	....	1	....	....	....	....	....	....	....	....
4	9	13	....	....	....	12	....	....	....	2
10	2	12	7	1	8	26	....	....	....	1
9	3	12	4	1	5	13	....	....	....	3
5	....	5	3	1	4	6	1	2	3	....
42	22	64	45	14	59	26	3	....	3	1
15	1	16	23	5	28	3	....	....	....	1
1	....	1	7	....	7	1	....	....	....	....
41	2	43	31	13	44	19	8	19	27	10
....	....	....	....	....	....	....	....	....	....	....
98	53	151	172	9	181	112	13	12	25	127
58	17	75	29	6	35	53	27	7	34	36
80	2	82	124	21	145	82	9	9	18	45
285	52	337	251	39	290	241	24	23	47	135
1	....	1	2	1	3	6	....	....	....	....
4	....	4	4	2	6	9	2	2	4	1
8	....	8	13	....	13	15	4	....	4	6
32	2	34	35	4	39	43	....	....	....	2
96	20	116	98	21	119	65	5	7	12	23
43	19	62	69	20	89	94	....	1	1	6
342	46	388	250	65	315	125	12	10	22	95
7,494	1,552	9,046	5,648	1,295	6,943	5,842	946	865	1,811	2,654

TABLE XIV.—*Admissions to sick report, total Army (including officers,* ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.	Causes of admission to sick report.	United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
		Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	1,598	58,075	1,915	59,990	61,588	62,130
03	Bites	....	82	2	84	84	86
04	Burns	18	986	19	1,005	1,023	1,032
05, 06	Burns, chemical and X-ray	2	212	2	214	216	218
09	Compression (brain)	....	6	....	6	6	6
10	Concussion (brain)	35	402	8	410	445	446
12	Contusion	35	2,088	11	2,099	2,134	2,139
14	Crushing	5	265	5	270	275	275
17–20	Dermatitis from traumatism	60	1,352	11	1,363	1,423	1,428
21	Dislocation of joint	36	1,148	30	1,178	1,214	1,222
62	Dislocation, articular, cartilage of knee	6	106	....	106	112	112
22, 23	Drowning (except suicides)	....	24	....	24	24	24
28	Epiphyseal separation	....	11	....	11	11	17
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	4	229	11	240	244	256
34	Foreign bodies	4	168	6	174	178	180
36	Fracture, simple	237	5,111	94	5,205	5,442	5,467
35	Fracture, compound	16	360	7	367	383	383
38–48	Fracture, faulty union	2	75	3	78	80	80
0x	Fracture near joint, with dislocation	....	15	....	15	15	15
37	Fracture comminuted	8	164	5	169	177	177
50	Gases, deleterious, absorption of	8	29	....	29	37	37
51	Gunshot wound	19	666	24	690	709	718
52–56	Hemorrhage and results	2	60	1	61	63	64
59	Homicides	1	9	3	12	13	13
66	Poisoning by food	34	658	8	666	700	701
67	Poisoning, other acute	6	150	3	153	159	159
96	Secondary result of injury	27	3,188	164	3,352	3,379	3,385
73	Sprain of joint	349	11,683	390	12,073	12,422	12,507
75	Strain	41	1,855	80	1,935	1,976	1,986
79	Suicide	1	30	2	32	33	33
81	Synovitis, traumatic, cause undetermined	38	600	13	613	651	655
85	Venomous bites and stings	13	224	8	232	245	255
93	Wounds, multiple	3	49	3	52	55	56
94	Wounds, penetrating	6	112	9	121	127	127
92	Wounds, extensive	1	4	....	4	5	5
95	Wounds, perforating	11	583	31	614	625	628
86–91	Wounds, others	411	19,628	764	20,392	20,803	21,070
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	159	5,719	196	5,915	6,074	6,142
80	Sunstroke	....	24	2	26	26	26
	Total for diseases	12,782	544,435	19,209	563,644	576,426	580,891
	Total for external causes	1,598	58,075	1,915	59,990	61,588	62,130
	Grand total	14,380	602,510	21,124	623,634	638,014	643,021

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
24,726	17,342	7,943	50,011	785	158	246	1,189	51,200	2,631	945	75	3,651	201	3,852
43	23	4	70	......	......	......	......	70	1	3	....	1	.....	4
451	296	93	840	8	3	3	14	854	51	27	....	78	1	79
94	58	31	183	......	......	1	1	184	9	2	...	11	.....	11
2	3	......	5	......	......	......	......	5	......	1	...	1	.....	1
182	120	41	343	2	......	1	3	346	23	3	....	26	.....	26
572	839	449	1,860	5	4	......	9	1,869	96	73	4	173	.....	173
74	133	25	232	2	......	1	3	235	13	5	....	18	1	19
591	526	101	1,218	6	3	......	9	1,227	21	1	....	22	.....	22
474	367	162	1,003	17	2	1	20	1,023	45	18	2	65	2	67
43	35	9	87	......	......	......	......	87	6	3	....	9	.....	9
......	24	......	24	......	......	......	......	24	......	......	....	......	.....	......
7	......	1	8	......	......	......	......	8	1	......	....	1	.....	1
95	67	22	184	5	......	1	6	190	16	1	....	17	....	17
62	46	26	134	2	......	2	4	138	15	......	....	15	.....	15
2,114	1,512	534	4,160	36	9	13	58	4,218	295	76	4	375	5	380
151	105	25	281	5	1	......	6	287	29	10	....	39	1	40
45	22	3	70	2	1	......	3	73	2	1	....	3	.....	3
6	4	2	12	......	......	......	......	12	2	1	....	3	.....	3
69	36	17	122	3	......	1	4	126	8	1	....	9	.....	9
10	4	......	14	......	......	......	......	14	2	1	7	10	.....	10
211	319	28	558	12	6	1	19	577	67	9	....	76	1	77
28	15	6	49	......	......	......	......	49	4	......	....	4	.....	4
6	1	......	7	3	......	......	3	10	1	......	....	1	.....	1
257	259	54	570	8	......	......	8	578	15	6	....	21	.....	21
78	35	8	121	1	......	......	1	122	2	2	....	4	.....	4
897	1,170	962	3,029	61	17	77	155	3,184	43	28	5	76	3	79
4,902	3,146	2,150	10,198	161	28	31	220	10,418	453	157	15	625	19	644
810	476	287	1,573	38	2	2	42	1,615	72	45	2	119	11	130
10	9	7	26	1	1	......	2	28	1	......	....	1	.....	1
256	189	85	530	7	4	1	12	542	26	18	2	46	.....	46
95	71	3	169	1	......	......	1	170	5	4	....	9	.....	9
22	13	2	37	......	1	......	1	38	6	1	....	7	.....	7
45	38	3	86	5	2	......	7	93	19	1	....	20	.....	20
3	......	1	4	......	......	......	......	4	......	......	....	......	.....	......
228	250	15	493	18	4	2	24	517	54	8	....	62	1	63
9,343	5,389	1,970	16,702	316	50	55	421	17,123	971	265	30	1,266	135	1,401
2,436	1,732	817	4,985	59	20	53	132	5,117	257	174	4	435	21	456
14	10	......	24	1	......	......	1	25	......	......	....	......	.....	......
182,396	187,147	111,891	481,434	5,633	2,193	6,171	13,997	495,431	19,602	12.169	759	32,530	1,442	33,972
24,726	17,342	7,943	50,011	785	158	246	1,189	51,200	2,631	945	75	3,651	201	3,852
207,122	204,489	119,834	531,445	6,418	2,351	6,417	15,186	546,631	22,233	13,114	834	36,181	1,643	37,824

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transport, and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES. Total	42	9	51	843	44	887
03	Bites	1		1			
04	Burns				19	2	21
05, 06	Burns, chemical and X-ray				1	1	2
09	Compression (brain)						
10	Concussion (brain)				10		10
12	Contusion	2		2	28		28
14	Crushing				4	1	5
17–20	Dermatitis from traumatism				16	1	17
21	Dislocation of joint				18		18
62	Dislocation, articular, cartilage of knee				3		3
22, 23	Drowning (except suicides)						
28	Epiphyseal separation						
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	1		1	4	1	5
34	Foreign bodies				2		2
36	Fracture, simple	2		2	70		70
35	Fracture, compound				7		7
38–48	Fracture, faulty union				1		1
0x	Fracture near joint, with dislocation						
37	Fracture, comminuted				2		2
50	Gases, deleterious, absorption of				5		5
51	Gunshot wound	1		1	3	1	4
52–56	Hemorrhage and results				2		2
59	Homicides						
66	Poisoning by food				6		6
67	Poisoning, other acute				4		4
96	Secondary result of injury	4		4	30	2	32
73	Sprain of joint	7	3	10	177	11	188
75	Strain				26	2	28
79	Suicide				1		1
81	Synovitis, traumatic, cause undetermined				7		7
85	Venomous bites and stings				4		4
93	Wounds, multiple				1	1	2
94	Wounds, penetrating						
92	Wounds, extensive						
95	Wounds, perforating	1		1	9		9
86–91	Wounds, others	17	6	23	310	19	329
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	6		6	73	2	75
80	Sunstroke						
	Total for diseases	348	102	450	11,139	821	11,960
	Total for external causes	42	9	51	843	44	887
	Grand total	390	111	501	11,982	865	12,847

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
1,075	314	1,389	1,516	158	1,674	937	57	57	114	428
5	2	7	1	....	1	1	....	....	....	2
18	1	19	17	1	18	14	....	....	....	9
5	....	5	7	....	7	5	1	1	2	....
....	....	....	....	....	....	....	....	....	....	....
4	4	8	16	1	17	3	....	....	....	1
16	1	17	4	1	5	5	....	....	....	5
4	....	4	6	....	6	1	....	....	....	....
24	....	24	49	1	50	23	....	....	....	5
14	7	21	27	1	28	21	....	3	3	5
....	....	....	1	....	1	6	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	1	....	6	6	....
12	1	13	6	3	9	5	1	....	1	11
3	1	4	10	1	11	4	1	....	1	1
130	13	143	236	18	254	138	4	....	4	21
8	....	8	20	....	20	5	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
14	1	15	10	....	10	7	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
9	2	11	7	1	8	12	....	2	2	7
1	....	1	2	1	3	2	1	....	1	....
1	....	1	....	....	....	....	....	....	....	....
9	....	9	42	....	42	10	1	....	1	....
13	....	13	5	2	7	3	....	....	....	....
17	3	20	14	1	15	18	....	....	....	6
185	82	267	327	55	382	164	10	11	21	64
46	22	68	72	3	75	19	1	....	1	9
....	....	....	2	....	2	....	....	....	....	....
6	1	7	5	....	5	6	....	....	....	4
13	5	18	7	2	9	22	....	1	1	9
1	1	2	....	....	....	3	....	....	....	1
3	1	4	....	1	1	3	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
5	3	8	4	3	7	9	1	1	2	1
413	128	541	559	55	614	361	31	28	59	208
96	34	130	58	7	65	66	5	4	9	59
....	1	1	....	....	....	....	....	....	....	....
7,494	1,552	9,046	5,648	1,295	6,943	5,842	946	865	1,811	2,654
1,075	314	1,389	1,516	158	1,674	937	57	57	114	428
8,569	1,866	10,435	7,164	1,453	8,617	6,779	1,003	922	1,925	3,082

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1,598	58,075	1,915	59,990	61,588	62,130
01–19	Total military agents	109	6,436	262	6,698	6,807	6,921
01	Bayonet	5	211	7	218	223	230
02	Club	10	483	33	516	526	543
03	Explosion of mine	....	1	....	1	1	1
04	Gas, asphyxiative	....	6	....	6	6	6
05	Gas poisonous	5	10	....	10	15	15
06	Flaming fluid	3	52	1	53	56	57
07	Hand grenade	2	55	....	55	57	57
08	Knife	5	644	39	683	688	700
09	Pistol ball	20	637	46	683	703	708
10	Rifle ball	7	850	51	901	908	916
11	Saber	....	2	....	2	2	2
12	Shell	5	58	....	58	63	63
13	Shrapnel	3	17	....	17	20	20
14	Cutting or piercing instruments	42	3,398	85	3,483	3,525	3,589
15	Secondary missile	2	6	....	6	8	8
16–19	Others military agents	....	6	....	6	6	6
20–29	Total by sinking ships	2	....	....	....	2	2
21	Sinking ships by storm	1	....	....	....	1	1
22	Sinking ships by submarine	1	....	....	....	1	1
30–39	Total by air machines	42	121	....	121	163	163
30	Aeroplane	42	116	....	116	158	158
31	Balloon	....	5	....	5	5	5
40–49	Total by vehicles and animals	181	6,792	207	6,999	7,180	7,193
40	Automobile	58	1,552	35	1,587	1,645	1,645
41	Motor cycle	48	629	6	635	683	683
42	Railroad accident	7	524	32	556	563	564
43	Street-car accident	6	151	4	155	161	161
44	Others by vehicles	3	366	13	379	382	385
45	Animals	59	3,570	117	3,687	3,746	3,755
50–59	Total by industrial agents	502	15,222	601	15,823	16,325	16,485
50	Conflagrations	....	15	....	15	15	15
51	Crushing	82	3,103	189	3,292	3,374	3,412
52	Electricity	1	15	....	15	16	16
53	Fall	402	11,297	382	11,679	12,081	12,193
54	Falling timbers	2	118	2	120	122	124
55	Fire	7	255	6	261	268	271
56	Splinters	6	260	6	266	272	274
57	Machinery	2	159	16	175	177	180
60–69	Total for extreme temperatures	2	181	4	185	187	188
60	Excessive cold	....	17	....	17	17	18
61	Heat	2	164	4	168	170	170

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
24,726	17,342	7,943	50,011	785	158	246	1,189	51,200	2,631	945	75	3,651	201	3,852
2,561	2,164	603	5,328	115	37	47	199	5,527	437	103	9	549	7	556
93	70	13	176	1	4	......	5	181	13	3	....	16	.....	16
198	146	37	381	14	7	1	22	403	37	6	....	43	1	44
1	....	....	1	......	......	......	....	1	....	....	....	....	.....	....
3	2	....	5	......	......	......	....	5	....	....	....	....	.....	....
....	1	1	2	......	......	......	....	2	....	2	5	7	.....	7
23	18	5	46	1	......	......	1	47	2	....	....	2	.....	2
9	4	3	16	......	......	......	....	16	27	2	....	29	.....	29
271	198	71	540	16	4	7	27	567	26	8	1	35	.....	35
253	266	36	555	25	8	6	39	594	50	7	....	57	1	58
275	422	65	762	26	8	12	46	808	44	[illegible]	....	53	.....	53
....	....	1	1	......	......	......	....	1	1	....	....	1	.....	1
5	4	1	10	......	......	......	....	10	44	2	....	46	.....	46
2	3	....	5	......	......	......	....	5	12	....	....	12	.....	12
1,426	1,026	370	2,822	32	6	21	59	2,881	176	63	3	242	5	247
2	4	....	6	......	......	......	....	6	....	....	....	....	.....	....
....	....	....	....	......	......	......	....	....	5	1	....	6	.....	6
....	....	....	....	......	......	......	....	....	....	....	....	....	.....	....
....	....	....	....	......	......	......	....	....	....	....	....	....	.....	....
....	....	....	....	......	......	......	....	....	....	....	....	....	.....	....
106	4	2	112	......	......	......	....	112	5	....	....	5	.....	5
102	3	2	107	......	......	......	....	107	5	....	....	5	.....	5
4	1	....	5	......	......	......	....	5	....	....	....	....	.....	....
3,527	1,775	688	5,990	95	11	27	133	6,123	310	79	11	400	16	416
650	513	207	1,370	11	7	7	25	1,395	74	12	4	90	5	95
288	155	63	506	......	......	......	....	506	32	3	4	39	3	42
145	239	76	460	16	1	13	30	490	47	3	1	51	2	53
57	64	23	144	......	1	2	3	147	2	1	....	3	.....	3
151	115	47	313	3	1	1	5	318	30	6	1	37	6	43
2,236	689	272	3,197	65	1	4	70	3,267	125	54	1	180	.....	180
7,163	4,174	1,681	13,018	237	30	51	318	13,336	782	192	30	1,004	90	1,094
9	3	2	14	......	......	......	....	14	....	....	....	....	.....	....
1,576	798	242	2,616	58	4	9	71	2,687	147	35	13	195	66	261
5	8	1	14	......	......	......	....	14	....	....	....	....	.....	....
5,202	3,134	1,350	9,686	171	24	34	229	9,915	598	151	15	764	21	785
59	32	9	100	1	1	......	2	102	6	....	1	7	.....	7
117	75	27	219	3	......	2	5	224	11	4	1	16	1	17
123	80	35	238	3	......	1	4	242	10	1	....	11	.....	11
72	44	15	131	1	1	5	7	138	10	1	....	11	2	13
80	51	27	158	1	1	1	3	161	9	3	....	12	.....	12
2	3	11	16	......	......	......	....	16	....	....	....	....	.....	....
78	48	16	142	1	1	1	3	145	9	3	....	12	.....	12

TABLE XIV.—*Admissions to sick report, total Arm (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transport, and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	42	9	51	843	44	887
01–19	Total military agents	6		6	107	5	112
01	Bayonet				2		2
02	Club				9	1	10
03	Explosion of mine						
04	Gas, asphyxiative				1		1
05	Gas, poisonous				1		1
06	Flaming fluid				2		2
07	Hand grenade				1		1
08	Knife	1		1	13	1	14
09	Pistol ball	1		1	9		9
10	Rifle ball	2		2	10	1	11
11	Saber						
12	Shell				1		1
13	Shrapnel						
14	Cutting or piercing instruments	2		2	58	2	60
15	Secondary missile						
16–19	Others, military agents						
20–29	Total by sinking ships						
21	Sinking ships by storm						
22	Sinking ships by submarine						
30–39	Total by air machines				4		4
30	Aeroplane				4		4
31	Balloon						
40–49	Total by vehicles and animals	6	1	7	49	1	50
40	Automobile				23		23
41	Motor cycle				3		3
42	Railroad accident				7		7
43	Street-car accident					1	1
44	Others by vehicles				2		2
45	Animals	6	1	7	14		14
50–59	Total by industrial agents	18	6	24	245	17	262
50	Conflagrations				1		1
51	Crushing	5	1	6	55	9	64
52	Electricity						
53	Fall	12	5	17	176	7	183
54	Falling timbers				5		5
55	Fire				2		2
56	Splinters	1		1	1		1
57	Machinery				5	1	6
60–69	Total for extreme temperatures				4		4
60	Excessive cold						
61	Heat				4		4

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine scouts.
White	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars	Regulars.	Regulars.		
1,075	314	1,389	1,516	158	1.674	937	57	57	114	428
152	25	177	117	26	143	177	11	9	20	94
5		5	4	2	6	8	1		1	6
29	5	34	12	4	16	9	3		3	14
			1		1	1				1
4		4	5		5					
19	4	23	15	7	22	21	1	1	2	10
7	4	11	3	2	5	5		1	1	4
3	1	4	5	3	8	15	1	2	3	5
1		1								
84	11	95	72	8	80	118	5	5	10	54
83	49	132	196	7	203	68	1	6	7	6
15	1	16	38	4	42	16				
14		14	65	3	68	2				
2		2	3		3	1		1	1	
3		3	1		1					
3	2	5	9		9	2		2	2	1
46	46	92	80		80	47	1	3	4	5
297	128	425	351	42	393	289	19	21	40	120
73	38	111	93	4	97	66	1	2	3	35
209	85	294	243	35	278	207	17	19	36	76
1		1	1		1	4				2
5		5	6		6	7				3
4		4	4	2	6	1				2
5	5	10	3	1	4	4	1		1	2
2		2	4	1	5	1				1
			1		1					1
2		2	3	1	4	1				

TABLE XIV.—*Admissions to sick report, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISM, AS SHOWN BEFORE—continued.						
70–79	Total by natural causes	37	1,362	31	1,393	1,430	1,443
70	Landslides	....	4	1	5	5	5
71	Lightning	....	6	....	6	6	6
72	Stones	1	107	7	114	115	115
73	Strangulations	....	3	....	3	3	4
74	Falling earth	....	31	....	31	31	31
75	Jumping	29	734	15	749	778	784
76	Hot liquid	7	477	8	485	492	498
80–81	Total by chemicals and poisons	7	119	1	120	127	129
80	Chemicals	6	108	1	109	115	117
81	Poison	1	11	....	11	12	12
99	All others from external agents	716	27,842	809	28,651	29,367	29,606

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	41,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
553	382	268	1,203	18	2	2	22	1,225	53	21	....	74	.....	74
1	....	....	1	1	......	......	1	2	....	....	....	....	.....	....
3	2	1	6	......	......	......	....	6	....	....	....	....	.....	....
38	36	12	86	5	......	1	6	92	12	2	....	14	.....	14
1	2	....	3	......	......	......	....	3	....	....	....	....	.....	....
18	9	1	28	......	......	......	....	28	1	......	....	1	.....	1
278	191	203	672	8	......	1	9	681	18	3	....	21	.....	21
214	142	51	407	4	2	......	6	413	22	16	....	38	.....	38
53	39	8	100	......	......	......	....	100	3	......	....	3	.....	3
49	35	7	91	......	......	......	....	91	3	......	....	3	.....	3
4	4	1	9	......	......	......	....	9	....	....	....	....	.....	....
10,683	8,753	4,666	24,102	319	77	118	514	24,616	1,032	547	25	1,604	88	1,692

TABLE XIV.—*Admissions to sick report, total Army, (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
70-79	Total by natural causes				28	3	31
70	Land slides						
71	Lightning						
72	Stones				3	1	4
73	Strangulations						
74	Falling earth						
75	Jumping				14	1	15
76	Hot liquid				11	1	12
80-81	Total by chemicals and poisons				3		3
80	Chemicals				2		2
81	Poison				1		1
[illegible]	All others from external agents	12	2	14	403	18	421

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
20	5	25	21	1	22	16	1	....	1	12
....	....	....	3	....	3	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	2	....	2	2	....	....	....	....
....	....	....	....	....	....	....	1	....	1	....
1	....	1	1	....	1	....	....	....	....	....
10	4	14	10	1	11	7	....	....	....	6
9	1	10	5	....	5	7	....	....	....	6
9	....	9	2	1	3	2	....	....	....	2
9	....	9	1	1	2	2	....	....	....	2
....	....	....	1	....	1	....	....	....	....	....
512	107	619	825	80	905	384	25	21	46	193

TABLE No. XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	0.32	0.45	0.22	0.45	0.44	0.44
2	Typhus fever	.03	.01	....	.01	.01	.01
3	Relapsing fever (all)	....	.05	.05	.05	.05	.05
4	Malarial fevers (all)	4.76	9.09	11.86	9.17	8.96	9.40
4a	Malarial fever, estivo-autumnal	.51	.93	2.12	.96	.94	1.01
4b	Malarial fever, mixed	....	.00	0.5	.01	.01	.01
4c	Malarial fever, quartan	.13	.11	.05	.11	.11	.11
4d	Malarial fever, tertian	2.98	5.11	7.51	5.17	5.07	5.46
4e	Malarial fever, undetermined	1.14	2.94	2.12	2.91	2.83	2.81
5	Smallpox	.06	.20	1.45	.23	.22	.23
6	Measles (all)	14.19	78.41	71.14	78.20	75.20	74.81
6a	Measles, uncomplicated	13.93	72.84	67.13	72.68	69.92	69.60
6c	Measles with broncho-pneumonia	....	2.26	1.28	2.23	2.12	2.10
6d	Measles with lobar pneumonia	....	1.10	1.28	1.10	1.05	1.04
6f	Measles with other complications	.25	2.21	1.45	2.19	2.10	2.07
7	Scarlet fever	.92	3.53	.67	3.45	3.33	3.29
8	Whooping cough	....	.04	.05	.04	.04	.04
9	Diphtheria and results	.92	1.97	.33	1.92	1.88	1.86
10	Influenza (all)	49.57	61.39	33.29	60.60	60.08	59.76
14	Dysentery (all)	1.14	.96	1.06	.96	.97	1.01
14a	Dysentery, bacillary	.10	.10	.05	.10	.10	.10
14b	Dysentery, balantidic	....	.00	.00	.00	.00	.00
14c	Dysentery, entamœbic	.67	.41	.50	.41	.43	.43
14d	Dysentery (other protozoal)	....	.00	.05	.00	.00	.00
14e	Dysentery, unclassified	.38	.44	.44	.44	.43	.47
15	Plague	....	.01	....	.01	.01	.01
17	Leprosy	....	.00	....	.00	.00	.01
18	Erysipelas	.76	1.08	1.06	1.08	1.06	1.05
18b	Meningitis, cerebrospinal (epidemic)	.41	1.61	3.51	1.67	1.61	1.59
19a	Chicken pox	.44	.43	2.73	.49	.49	.55
19b	Diphtheria bacillus carrier	.32	.41	.89	.42	.42	.42
19c	German measles	7.11	14.87	3.67	14.56	14.21	14.34
19d	Hemoglobinuric fever (nonmalarial)	....	.00	.05	.01	.01	.01
19e	Paratyphoid fever A	.10	.02	....	.02	.02	.02
19f	Paratyphoid fever B	.03	.01	....	.01	.01	.01
19g	Trench fever	.16	.03	....	.03	.03	.04
19i	Typhoid bacillus carrier	....	.02	....	.02	.02	.02
19j	Typhoid vaccination	8.22	16.21	9.46	16.02	15.65	15.54
19k	Vaccinia	3.52	14.24	4.84	13.98	13.48	13.35
19l	Mumps	5.11	41.03	67.02	41.76	40.04	39.75
20	Septichæmia, general	.13	.08	....	.08	.08	.08
20b	Pyæmia, surgical	....	.01	....	.01	.01	.01
21	Glanders	.03	.00	....	.00	.01	.01
22	Anthrax	....	.01	....	.01	.01	.01
24	Tetanus	....	.01	....	.01	.01	.01
25	Trench foot	.13	.20	....	.20	.19	.19
25a	Mycoses (others)	.03	.04	....	.03	.03	.03
26	Pellagra	....	.04	.17	.04	.04	.04
27	Beriberi	....	....	....	....	....	.01
47	Rheumatic fever	2.51	8.39	6.68	8.34	8.07	7.99
11, 19, 18a, 18c, 20a	Infectious disease (others)	2.35	3.46	4.12	3.48	3.43	3.74
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	4.22	10.87	26.33	11.30	10.97	10.88
29	Miliary tuberculosis, acute	.03	.06	....	.06	.06	.06
30-35	Tuberculosis (others)	.28	.74	1.84	.77	.75	.75

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.25	0.70	0.27	0.41	0.19	0.69	0.16	0.23	0.41	0.20	0.11	......	0.18	1.38	0.20
......	.03	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.09	.04	.02	.05	......	......	......	......	.05	......	......	......	......	......	......
7.54	11.06	3.16	7.50	9.48	6.23	2.80	5.85	7.46	2.90	.63	......	2.36	6.92	2.43
.24	.24	.09	.20	.76	......	.16	.38	.20	.06	......	......	.04	......	.04
.01	.01	.01	.01	......	.69	......	.08	.01	......	......	......	......	......	......
.12	.15	.01	.10	......	......	.16	.08	.09	.03	......	......	.02	......	.02
5.91	4.50	1.44	4.10	4.74	3.46	1.87	3.19	4.08	1.05	.21	......	.85	1.38	.85
1.27	6.17	1.62	3.09	3.98	2.08	.62	2.13	3.07	1.77	.42	......	1.45	5.53	1.51
.28	.18	.19	.22	1.33	......	2.95	1.98	.26	......	......	......	......	......	......
57.56	110.77	87.71	85.11	40.97	44.98	134.31	87.07	85.15	17.80	67.96	21.34	28.49	49.79	28.83
53.64	102.39	81.60	78.96	39.65	43.60	125.90	82.28	79.04	17.13	64.60	18.29	27.20	47.03	27.51
1.41	3.65	2.38	2.48	.57	......	2.33	1.37	2.46	.35	1.05	1.02	.51	......	.50
.57	1.96	1.21	1.25	.19	.69	3.26	1.75	1.26	......	.11	......	.02	......	.02
1.95	2.79	2.53	2.42	.57	.69	2.80	1.67	2.40	.32	2.21	2.03	.76	2.77	.79
5.37	2.57	2.63	3.58	.57	......	1.24	.84	3.52	1.51	11.26	8.13	3.72	......	3.66
.06	.04	.03	.04	......	......	.16	.08	.04	......	.11	......	.02	......	.02
3.41	1.94	.76	2.12	.57	.69	.31	.46	2.08	1.16	.63	1.02	1.05	......	1.03
56.72	64.06	53.77	58.44	27.12	38.75	25.96	27.83	57.72	60.02	245.98	118.90	100.65	132.78	101.16
1.43	.71	.38	.87	.95	.69	.78	.84	.87	.96	.74	......	.89	1.38	.90
.11	.10	.06	.09	......	......	.16	.08	.09	.09	......	......	.07	......	.07
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.78	.15	.08	.35	.57	......	.16	.30	.35	.29	......	......	.22	......	.22
.01	......	.01	......	......	......	......	......	......	......	......	......	......	1.38	.02
.54	.46	.24	.42	.38	.69	.47	.46	.42	.58	.74	......	.60	......	.59
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
1.54	1.14	.77	1.17	.57	.69	2.33	1.44	1.18	.29	1.05	1.02	.47	......	.46
1.19	1.80	2.13	1.68	.95	2.77	7.00	4.11	1.74	1.22	1.89	3.05	1.40	4.15	1.45
.69	.33	.28	.44	3.22	.69	4.20	3.42	.51	.17	.95	1.02	.36	......	.35
.28	.35	.78	.45	......	......	2.33	1.14	.47	.29	......	......	.22	......	.22
15.36	17.16	16.61	16.36	4.93	9.00	2.95	4.41	16.08	3.31	4.21	5.08	3.54	5.53	3.57
.01	......	.01	.01	......	.69	......	.08	.01	......	......	......	......	......	......
.02	.03	......	.02	......	......	......	......	.02	.03	......	......	.02	......	.02
.01	......	......	.00	......	......	......	......	.00	.15	......	......	.11	......	.11
......	......	......	......	......	......	......	......	......	.49	.21	......	.42	......	.42
.02	.04	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
23.06	10.59	19.59	17.65	14.04	15.22	8.08	11.25	17.50	2.15	.42	3.05	1.80	1.38	1.80
20.99	14.68	10.45	15.69	10.05	6.92	2.80	6.16	15.47	.78	1.47	......	.91	2.77	.94
34.85	52.64	27.37	38.93	16.31	121.11	35.60	37.26	38.89	54.79	144.45	73.17	74.16	574.00	82.08
.12	.07	.06	.09	......	......	......	......	.08	.03	.11	......	.04	......	.04
.03	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.03	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	2.99	1.79	......	2.67	......	2.63
.05	.04	.02	.04	......	......	......	......	.04	......	......	......	......	......	......
.02	.06	.03	.04	.38	......	.16	.23	.04	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
10.59	9.20	5.72	8.68	3.59	19.38	5.75	6.39	8.63	6.82	11.36	6.10	7.77	23.51	8.02
.68	2.40	4.78	2.48	.38	2.77	5.60	3.19	2.50	.52	.11	5.08	.53	1.38	.55
9.86	15.16	9.74	11.69	19.92	39.45	40.26	32.02	12.17	2.85	3.26	5.08	2.98	20.75	3.26
.05	.08	.07	.07	......	......	......	......	.06	......	......	......	......	......	......
.73	.76	.80	.76	1.33	3.46	2.02	1.90	.79	.49	.74	1.02	.56	1.38	.57

TABLE No. XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	....	....	....	....	....	....
2	Typhus fever	....	....	....	....	....	....
3	Relapsing fever (all)	....	....	....	0.26	....	0.24
4	Malarial fevers (all)	8.01	4.98	7.27	15.47	17.67	15.63
4a	Malarial fever, estivo-autumnal	1.60	....	1.21	.26	....	.24
4b	Malarial fever, mixed	....	....	....	....	....	....
4c	Malarial fever, quartan	....	....	....	.52	....	.49
4d	Malarial fever, tertian	3.21	....	2.42	9.97	10.60	10.01
4e	Malarial fever, undertermined	3.21	4.98	3.64	4.72	7.07	4.88
5	Smallpox	....	....	....	.52	....	.49
6	Measles (all)	1.60	14.92	4.85	209.54	183.75	207.76
6a	Measles, uncomplicated	1.60	14.92	4.85	200.10	176.68	198.49
6c	Measles with broncho-pneumonia	....	....	....	5.25	7.07	5.37
6d	Measles with lobar pneumonia	....	....	....	.52	....	.49
6f	Measles with other complications	....	....	....	3.67	....	3.42
7	Scarlet fever	....	....	....	14.69	3.53	13.92
8	Whooping cough	....	....	....	....	....	....
9	Diphtheria and results	....	....	....	4.46	....	4.15
10	Influenza (all)	14.42	129.34	42.42	297.14	137.81	286.13
14	Dysentery (all)	1.60	....	1.21	4.98	3.53	4.88
14a	Dysentery, bacillary	....	....	....	2.62	....	2.44
14b	Dysentery, balantidic	....	....	....	....	....	....
14c	Dysentery, entamœbic	1.60	....	1.21	1.05	....	.98
14d	Dysentery (other protozoal)	....	....	....	....	....	....
14e	Dysentery, unclassified	....	....	....	1.31	3.53	1.46
15	Plague	....	....	....	....	....	....
17	Leprosy	....	....	....	....	....	....
18	Erysipelas	....	....	....	1.57	....	1,46
18a	Meningitis, Cerebrospinal (epidemic)	....	....	....	5.54	17.67	6.34
19a	Chicken pox	....	....	....	1.57	3.53	1.71
19b	Diphtheria bacillus carrier	....	....	....	....	3.53	.24
19c	German measles	....	....	....	27.80	10.60	26.61
19d	Hemoglobinuric fever (nonmalarial)	....	....	....	....	....	....
19e	Paratyphoid fever A	....	....	....	....	....	....
19f	Paratyphoid fever B	....	....	....	....	....	....
19g	Trench fever	....	....	....	....	....	....
19i	Typhoid bacillus carrier	....	....	....	.26	....	.24
19j	Typhoid vaccination	1.60	....	1.21	34.88	....	32.47
19k	Vaccinia	1.60	....	1.21	59.54	14.13	56.40
19l	Mumps	....	....	....	170.20	469.99	190.92
20	Septichæmia, general	....	....	....	....	....	....
20b	Pyæmia, surgical	....	....	....	....	....	....
21	Glanders	....	....	....	....	....	....
22	Anthrax	....	....	....	....	....	....
24	Tetanus	....	....	....	....	....	....
25	Trench foot	....	....	....	1.05	....	.98
25a	Mycoses (others)	....	....	....	.52	....	.49
26	Pellagra	....	....	....	.52	....	.49
27	Beriberi	....	....	....	....	....	....
47	Rheumatic fever	6.41	14.92	8.48	21.77	35.34	22.71
11, 19, 18a, 18c, 20a	Infectious disease (others)	....	....	....	2.88	10.60	3.42
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	6.41	4.98	6.06	33.57	81.27	36.87
29	Miliary tuberculosis, acute	....	....	....	.26	....	.24
30-35	Tuberculosis (others)	....	....	....	3.67	14.13	4.39

erican and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1.914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	5.37	....	4.38	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.21	0.47	.26	0.37	....	....	....	....
50.24	81.68	54.60	3.54	.95	3.07	109.23	....	....	26.65	56.63
7.25	21.25	9.19	.96	.47	.88	47.96	....	....	2.09	9.26
....	....	....	....	....	....	.12	....	....	....	....
.64	....	.55	....	....	....	.74	....	....	....	....
41.18	58.43	43.57	2.58	.47	2.19	55.23	....	....	22.46	47.01
1.17	1.99	1.29	....	....	....	5.18	....	....	2.09	.26
.11	....	.09	....	....	....	....	....	....	....	.54
2.45	1.33	2.30	14.82	19.03	15.59	9.37	....	....	153.08	.73
2.35	1.33	2.21	13.53	16.65	14.19	9.25	....	....	153.08	.73
....	....	....	.54	1.43	.70	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	.75	.95	.79	....	....	....	....	....
.11	....	.09	1.40	....	1.14	.25	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.43	....	.35	....	....	....	....	.18
3.09	11.29	4.23	24.48	25.60	24.79	44.75	....	....	83.59	4.72
5.44	3.98	5.24	.97	....	.79	.25	....	....	15.67	1.45
....	....	....	.11	....	.09	....	....	....	....	.36
.21	....	.18	....	....	....	....	....	....	....	....
4.69	3.32	4.50	.54	....	.44	.25	....	....	.52	.54
....	....	....	....	....	....	....	....	....	....	....
.53	.66	.55	.32	....	.26	....	....	....	15.15	.54
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.36
.21	....	.18	.11	....	.09	.25	....	....	....	.18
....	....	....	.21	.47	.26	.12	....	....	....	.36
.21	....	.18	.11	1.43	.35	....	....	....	7.32	5.45
....	....	....	....	....	....	....	....	....	....	....
.32	....	.27	5.05	.48	4.20	.86	....	....	100.31	.73
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.64	....	.55	21.47	9.99	19.36	2.96	....	....	17.76	1.82
.64	....	.55	1.50	....	1.23	.62	....	....	3.13	.36
9.81	39.17	13.88	20.51	50.90	26.10	.86	....	....	.52	17.97
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	1.04	.36
1.17	1.33	1.19	2.04	1.90	2.01	1.97	....	....	2.04	.54
72.86	18.59	65.35	.64	....	.53	9.37	....	....	.52	42.47
5.55	3.98	5.33	4.29	3.33	4.12	2.34	....	....	2.04	2.90
....	....	....	....	....	....	....	....	....	....	.18
.11	1.33	.27	.11	.48	.18	.62	....	....	.52	.91

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	2.16	14.78	48.37	15.73	15.09	15.18
37a	Syphilis, hereditary	....	.04	....	.03	.03	.03
37b	Syphilis, primary	.48	3.98	16.31	4.33	4.15	4.22
37c	Syphilis, secondary	1.08	8.62	21.15	8.97	8.60	8.63
37d	Syphilis, tertiary	.60	2.14	10.91	2.39	2.30	2.30
38a	Chancroid	.41	13.52	60.06	14.83	14.15	14.13
38b	Gonococcus infection	4.38	79.31	172.78	81.94	78.30	77.92
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	.10	.12	....	.12	.11	.11
39–45	Cancer and other malignant tumors	.22	.15	....	.15	.15	.15
46	Benign tumors	.82	1.19	2.17	1.22	1.20	1.21
48	Arthritis	2.35	5.62	9.63	5.73	5.57	5.53
48a	Gout	.10	.03	....	.03	.04	.04
49	Scurvy	....	.01	....	.01	.01	.01
50	Diabetes mellitus	.54	.17	.11	.17	.18	.18
51a	Diseases of the thyroid gland (goiter simple excepted)	.22	.98	.28	.96	.93	.92
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted).	....	.07	.05	.07	.07	.07
53a	Leukemia	....	.01	....	.01	.01	.01
54	Anemia	.19	.19	.22	.20	.19	.19
55a	Purpura rheumatica	....	.01	....	.01	.01	.01
56	Inebriety, drug addiction	.29	.69	1.00	.70	.68	.68
56a	Alcoholism	1.11	2.83	2.11	2.81	2.73	2.71
57–59	Poisoning, chronic	....	.04	.05	.04	.04	.04
55, 88	General diseases (others)	1.49	5.15	8.79	5.25	5.07	5.05
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	.10	.17	.10	.10	.10
62	Locomotor ataxia	.06	.06	....	.06	.06	.06
63	Diseases of the spinal cord (others)	.10	.20	.39	.20	.20	.20
64	Apoplexy	.16	.03	....	.03	.04	.04
66	Paralysis, cause not specified	.19	.38	.50	.38	.38	.37
69	Epilepsy	.38	2.70	5.23	2.77	2.65	2.63
72	Chorea	....	.13	....	.12	.12	.11
73	Hysteria and results (psychoses excepted)	1.21	1.25	2.00	1.27	1.27	1.28
73a	Neuralgia	.95	1.80	3.34	1.84	1.80	1.79
73b	Neuritis	1.30	1.11	1.17	1.11	1.12	1.12
74	Neurasthenia	3.49	1.54	.67	1.51	1.61	1.59
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	.83	2.06	2.73	2.08	2.02	2.01
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane	....	.05	.05	.05	.05	.05
68a	Constitutional psychopathic states	.29	.78	.33	.77	.74	.74
68b	Dementia precox	.38	1.43	1.67	1.44	1.39	1.38
68c	Mental deficiency	....	2.56	2.56	2.56	2.44	2.42
68d	Psychasthenia	.32	.16	....	.15	.16	.16
68e	Psychoneurosis	.16	.39	.28	.39	.38	.37
56b	Psychoses (alcoholic)	.06	.25	.22	.25	.24	.24
68f	Psychoses (nonalcoholic)	.86	.77	1.06	.78	.78	.78
68	Mental alienation (others)	.32	.21	.28	.22	.22	.22
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	4.00	7.19	9.02	7.24	7.08	7.12
75b	Trachoma	.03	.76	.33	.74	.71	.71
75c	Refractive errors	.67	1.03	.61	1.02	1.00	.99
75e	Iritis	.63	.49	.95	.50	.51	.51
75f	Keratitis	.13	.49	.78	.50	.48	.48
75g	Choroiditis	.03	.07	....	.07	.07	.07
75h	Retinitis	.10	.10	.56	.12	.11	.11
75i	The eyes and annexa (other diseases of)	1.02	2.66	4.62	2.72	2.64	2.63

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
15.61	15.06	11.55	14.22	55.20	60.90	52.85	54.68	15.17	10.25	7.68	4.06	9.57	15.22	9.66
.06	.03	.01	.03	......	......	......	......	.03	.09	......	......	.07	......	.07
4.19	4.14	3.08	3.85	19.92	22.84	19.59	20.08	4.23	4.47	2.42	1.02	3.96	8.30	4.03
9.12	8.89	6.72	8.34	21.43	31.83	20.52	22.13	8.66	4.50	4.21	3.05	4.41	4.15	4.40
2.24	1.97	1.74	2.00	13.85	6.23	12.75	12.47	2.25	1.19	1.05	......	1.14	2.77	1.16
16.97	13.17	5.87	12.39	54.81	136.33	32.33	52.78	13.34	11.67	4.31	5.08	9.97	44.26	10.51
81.39	91.99	72.32	82.47	242.41	392.39	128.24	203.04	85.31	37.20	34.19	22.36	36.24	66.39	36.71
.13	.15	.09	.12	......	......	......	......	.12	.03	......	......	.02	......	.02
.24	.15	.06	.15	......	......	......	......	.15	.06	.11	......	.07	......	.07
1.56	1.19	.68	1.17	1.90	......	2.02	1.75	1.19	.52	.74	......	.56	2.77	.59
5.15	6.04	6.09	5.74	9.28	15.22	10.57	10.58	5.85	4.09	7.05	4.06	4.72	11.06	4.82
.04	.03	.02	.03	......	......	......	......	.03	......	......	......	......	......	......
.02	......	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.21	.21	.12	.18	.19	......	......	.08	.18	.06	......	......	.04	......	.04
.57	1.83	.82	1.09	......	......	.78	.38	1.07	.06	.21	......	.09	......	.09
.06	.07	.08	.07	.19	......	......	.08	.07	.06	......	1.02	.07	......	.07
.01	.02	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.20	.23	.16	.20	.57	......	......	.23	.20	.03	.63	......	.16	......	.15
.02	......	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.54	.37	1.45	.75	1.71	.69	1.09	1.30	.76	.15	.11	......	.13	......	.13
4.27	1.94	.83	2.45	2.09	......	.47	1.06	2.41	1.68	1.16	1.02	1.56	2.77	1.58
.03	.06	.02	.04	......	......	......	......	.04	.03	......	......	.02	......	.02
5.44	5.41	4.39	5.12	9.67	22.84	3.58	8.14	5.19	3.54	10.42	4.06	5.01	26.28	5.34
.08	.14	.07	.10	......	......	.47	.23	.10	.03	.21	......	.07	......	.07
.06	.07	.07	.07	......	......	......	......	.06	.09	.11	......	.09	......	.09
.13	.28	.24	.21	.76	.69	.31	.53	.22	.03	......	......	.02	......	.02
.03	.04	.04	.04	......	......	......	......	.04	......	......	......	......	......	......
.36	.49	.28	.38	.57	......	.47	.46	.38	.26	.74	......	.36	......	.35
3.04	2.80	2.78	2.88	5.49	5.54	7.62	6.54	2.96	1.34	.84	1.02	1.22	4.15	1.27
.18	.15	.08	.14	......	......	......	......	.13	.03	.21	......	.07	......	.07
1.18	1.18	1.15	1.17	1.52	2.08	2.49	2.05	1.19	1.57	2.74	2.03	1.83	4.15	1.86
2.39	1.58	1.43	1.83	6.45	......	2.02	3.57	1.87	.90	2.21	......	1.16	2.77	1.18
1.42	.98	.95	1.13	.76	3.46	.78	1.06	1.13	.44	.95	1.02	.56	4.15	.61
1.66	1.14	1.73	1.50	.57	.69	.31	.46	1.47	.67	.84	......	.69	......	.68
2.38	2.15	2.07	2.21	2.85	3.46	2.18	2.59	2.21	.61	1.79	1.02	.87	6.92	.96
.08	.02	.04	.05	.19	......	......	.08	.05	.03	.11	......	.04	......	.04
.89	1.12	.51	.86	.38	1.38	......	.30	.84	.06	......	......	.04	1.38	.07
2.00	1.10	1.22	1.46	1.90	.69	1.87	1.75	1.46	.64	.42	......	.58	......	.57
2.14	3.90	2.27	2.80	2.85	1.38	3.26	2.89	2.80	.64	.84	......	.67	2.77	.76
.13	.20	.18	.17	......	......	......	......	.16	.06	......	......	.04	......	.04
.31	.46	.50	.42	.19	.69	.31	.30	.42	.12	......	......	.09	......	.09
.29	.17	.29	.25	.38	......	.16	.23	.25	.12	......	......	.09	1.38	.11
.77	.72	1.00	.82	2.28	......	.93	1.37	.83	.26	.21	......	.24	......	.24
.30	.15	.19	.21	.57	......	.16	.30	.22	.09	......	......	.07	......	.07
8.55	6.55	7.38	7.50	7.21	6.23	9.95	8.44	7.52	3.66	5.26	5.08	4.03	15.21	4.21
.47	1.25	.79	.84	.38	.69	.31	.38	.83	.03	.53	......	.13	......	.13
.99	1.30	.68	1.01	1.33	1.38	......	.68	1.00	.93	1.58	......	1.05	......	1.03
.45	.54	.31	.44	.95	1.38	1.09	1.06	.45	.55	.63	......	.56	......	.55
.50	.60	.45	.52	.57	1.38	1.09	.91	.53	.23	.53	1.02	.31	......	.31
.09	.10	.02	.08	......	......	......	......	.07	......	......	......	......	......	......
.12	.12	.04	.10	1.52	......	.31	.76	.11	.03	.11	......	.04	......	.04
2.59	3.42	1.99	2.71	7.40	10.38	2.64	5.40	2.77	1.51	2.42	2.03	1.71	2.77	1.73

TABLE XV.—*Admissions to sick report, total Army (including officers*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	11.22	14.93	12.12	65.04	116.61	68.60
37a	Syphilis, hereditary						
37b	Syphilis, primary				17.57	45.94	19.53
37c	Syphilis, secondary	6.41	4.98	6.06	41.17	21.20	39.79
37d	Syphilis, tertiary	4.81	9.95	6.06	6.29	49.47	9.28
38a	Chancroid	4.81	14.92	7.27	81.07	53.00	79.10
38b	Gonococcus infection	4.81	14.92	7.27	261.90	406.36	271.91
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets				.26		.24
39–45	Cancer and other malignant tumors				1.05		.98
46	Benign tumors				4.46		4.15
48	Arthritis	3.21	14.92	6.06	17.30	31.80	18.31
48a	Gout				.26		.24
49	Scurvy						
50	Diabetes mellitus		4.98	1.21			
51a	Diseases of the thyroid gland (goiter simple excepted)				1.84		1.71
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted.				.79		.73
53a	Leukemia						
54	Anemia				.79		.73
55a	Purpura rheumatica						
56	Inebriety, drug addiction				1.05	3.53	1.22
56a	Alcoholism	1.60		1.21	7.34		6.83
57–59	Poisoning, chronic				.26		.24
55, 88	General diseases (others)	9.62	9.95	9.70	17.57	28.27	18.31
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple				1.05		.98
62	Locomotor ataxia						
63	Diseases of the spinal cord (others)				.52		.49
64	Apoplexy						
66	Paralysis, cause not specified				1.31	7.07	1.71
69	Epilepsy				7.87	10.60	8.06
72	Chorea						
73	Hysteria and results (psychoses excepted)				6.03		5.61
73a	Neuralgia				6.03	3.53	5.86
73b	Neuritis				1.57	7.07	1.95
74	Neurasthenia		9.95	2.42	4.20	3.53	4.15
60, 65, 70 73, 74a	Diseases of the nervous system (others)	1.60		1.21	2.88	10.60	3.42
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane						
68a	Constitutional psychopathic states				.52		.49
68b	Dementia precox				4.98	3.53	4.88
68c	Mental deficiency				3.41	3.53	3.42
68d	Psychasthenia				.52		.48
68e	Psychoneurosis				.79		.73
56b	Psychoses (alcoholic)				1.05		.98
68f	Psychoses (nonalcoholic)	3.21		2.42	2.10		1.95
68	Mental alienation (others)				3.41		3.17
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	25.64	9.95	21.82	16.78	17.67	16.84
75b	Trachoma						
75c	Refractive errors				2.62		2.44
75e	Iritis	3.21		2.42	2.88		2.68
75f	Keratitis				1.05		.98
75g	Choroiditis				.52		.49
75h	Retinitis				.79		.73
75	The eyes and annexa (other diseases of)	4.81		3.64	8.39	7.07	8.30

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars and colored.	White	Regulars.	Regulars.		
56.01	41.17	53.96	8.27	19.50	10.34	18.00	....	....	46.50	15.79
....	....	....	.21	....	.18	....	....	....	....	....
9.39	3.32	8.55	1.72	2.38	1.84	3.33	....	....	32.39	2.90
35.42	32.53	35.02	3.97	14.27	5.87	10.23	....	....	12.01	10.53
11.20	5.31	10.39	2.36	2.85	2.45	4.44	....	....	2.09	2.36
48.11	203.85	69.67	12.56	13.32	12.70	39.70	....	....	21.94	8.35
89.09	125.50	94.13	33.93	37.58	34.60	66.08	....	....	58.51	38.48
.11	....	.09	....	....	....	.37	....	....	....	....
.21	....	.18	....	....	....	.49	....	....	....	....
2.35	4.65	2.67	2.79	3.33	2.89	1.48	....	....	.52	2.18
2.56	1.33	2.39	4.19	5.71	4.47	2.47	....	....	2.09	1.09
.21	....	.18	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	.25	....	....	....	....
.43	....	.37	.32	....	.26	.12	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.21	.66	.27	.11	....	.09	.12	....	....	.52	....
....	....	....	....	....	....	....	....	....	....	....
.64	....	.55	.43	....	.35	.49	....	....	....	....
20.06	9.96	18.66	7.19	3.33	6.48	9.12	....	....	1.04	.36
.21	.66	.27	.11	....	.09	.12	....	....	....	.18
4.05	9.30	4.78	5.69	3.81	5.34	2.22	....	....	1.57	3.45
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
.32	....	.27	.11	....	.09	....	....	....	....	....
....	....	....	.21	....	.18	....	....	....	....	....
.32	....	.27	.11	.48	.18	.37	....	....	1.04	....
.64	1.33	.74	.54	....	.44	1.23	....	....	.52	.54
.11	....	.09	....	....	....	....	....	....	....	....
.53	2.66	.83	1.29	.95	1.23	2.10	....	....	6.27	.54
1.92	4.65	2.30	1.72	1.43	1.66	1.36	....	....	1.57	.73
.53	....	.46	1.18	.95	1.14	3.08	....	....	3.13	.91
3.20	1.99	3.03	.75	....	.61	6.78	....	....	1.57	.18
1.07	3.32	1.38	.97	.95	.96	1.36	....	....	1.04	1.09
....	....	....	....	....	....	.49	....	....	....	....
.21	....	.18	.75	.48	.70	.49	....	....	....	.18
2.35	1.99	2.30	1.83	1.43	1.75	1.60	....	....	....	.18
.32	....	.27	1.29	2.38	1.49	.99	....	....	....	.36
.11	....	.09	....	....	....	.12	....	....	....	.36
....	.66	.09	.21	....	.18	.49	....	....	....	....
.64	....	.55	.11	....	.09	.62	....	....	....	....
.11	....	.09	.43	.48	.44	.86	....	....	1.04	.18
.11	....	.09	....	.48	.09	....	....	....	1.04	....
3.41	8.63	4.14	4.62	9.51	5.52	4.81	....	....	4.70	11.98
.32	.66	.37	.11	....	.09	.12	....	....	....	.73
1.81	1.33	1.75	.85	....	.70	1.23	....	....	....	....
.64	....	.55	.54	1.43	.70	2.10	....	....	....	....
.21	.66	.27	.11	.48	.18	.12	....	....	....	.18
....	....	....	.11	....	.09	.12	....	....	....	....
....	....	....	.32	....	.26	.49	....	....	....	....
2.35	2.66	2.39	2.47	1.90	2.37	2.59	....	....	4.18	1.63

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	0.19	0.42	0.17	0.41	0.40	0.40
76b	Otitis media	3.27	10.27	5.79	10.15	9.82	9.73
76c	Ears, other diseases of	.32	.88	.95	.88	.86	.88
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	.19	.43	.33	.42	.41	.41
86b	Deviation of nasal septum or spurs	3.62	2.01	.33	1.96	2.04	2.02
86c	Sinusitis	3.01	1.53	1.61	1.53	1.60	1.58
86d	Nasal fossæ, other diseases of	8.70	12.91	8.90	12.79	12.60	12.73
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	9.68	8.29	4.45	8.18	8.25	8.17
100	Pharynx, diseases of	14.66	14.35	12.75	14.31	14.32	14.20
100a	Tonsils, diseases of	39.67	73.48	48.04	72.77	71.21	70.50
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	.06	.08	.05	.08	.08	.08
78	Endocarditis, acute	.03	.14	.44	.15	.14	.14
79	Valvular heart diseases	.83	3.87	4.73	3.90	3.75	3.71
79a	Heart, other organic diseases of	.86	1.84	4.06	1.90	1.85	1.84
80	Angina pectoris	.19	.12	.28	.13	.13	.13
81a	Aneurysm		.02		.02	.02	.02
81	Arteries, other diseases of	1.43	.14	.17	.14	.20	.19
82	Embolism and thrombosis	.16	.05		.05	.05	.05
83a	Hemorrhoids	5.49	6.90	13.70	7.09	7.01	6.96
83b	Varicocele	.54	3.62	2.34	3.59	3.44	3.41
83	Veins, other diseases of	.67	1.83	1.67	1.82	1.77	1.75
84a	Status lymphaticus		.00	.11	.01	.00	.00
84	Lymphatic system, other diseases of	1.97	4.34	6.23	4.39	4.28	4.32
85a	Cardiac arrhythmias	.10	.07		.07	.07	.07
85b	Cardiac murmur, not organic	.03	.04	.05	.04	.04	.04
85c	Cardiac disorders, functional	.06	.19	.17	.19	.18	.18
85d	Hemorrhage	.35	.45	.67	.45	.45	.45
85	Circulatory system, other diseases of	.38	1.06	1.89	1.08	1.05	1.04
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	54.11	77.72	72.97	77.59	76.48	76.06
91	Broncho-pneumonia	1.49	2.59	6.96	2.71	2.65	2.63
92	Pneumonia, lobar	3.75	10.83	45.09	11.79	11.41	11.32
92b	Pneumonia, unclassified	.06	.08	.17	.09	.08	.08
93	Pleurisy	3.11	5.29	10.19	5.43	5.32	5.28
95	Gangrene of lung		.01	.05	.01	.01	.01
98	Abscess of lung		.01		.01	.01	.01
96, 97	Respiratory systems, other diseases of	1.21	2.17	3.90	2.22	2.17	2.17
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	3.49	4.01	4.56	4.02	4.00	3.98
101	Esophagus, diseases of		.01	.05	.01	.01	.01
102	Ulcer of the stomach	.89	.49	.28	.48	.50	.50
103	Stomach, diseases of (ulcer and cancer excepted)	7.24	10.89	12.75	10.94	10.76	10.74
106	Ankylostomiasis	.10	.56		.55	.53	.56
107a	Intestinal parasites, others	.22	.48	.50	.48	.47	.49
108	Appendicitis	8.06	10.01	9.63	10.00	9.91	9.81
109	Hernia	4.57	8.78	9.07	8.79	8.59	8.51
109a	Intestinal obstruction	.19	.15	.33	.16	.16	.16
105, 110	Intestines, other diseases of	35.80	49.25	47.48	49.20	48.57	48.82
112	Hydatid tumor of liver		.00		.00	.00	.00

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.36	0.73	0.20	0.45	0.19	......	0.16	0.15	0.44	0.20	0.74	......	0.31	......	0.31
9.80	14.09	7.50	10.64	4.93	6.92	5.60	5.48	10.52	5.75	15.15	11.18	7.86	8.30	7.86
.83	1.00	.61	.83	1.33	2.08	.31	.91	.83	.64	.42	......	.58	......	.57
.54	.46	.10	.38	.38	1.38	......	.30	.38	.38	.95	......	.49	......	.48
2.88	1.85	1.25	2.04	.76	......	......	.30	2.00	.46	.21	......	.40	......	.39
1.81	1.52	1.06	1.49	1.71	2.08	1.40	1.60	1.49	1.39	2.31	1.02	1.58	1.38	1.58
16.22	12.07	10.77	13.16	11.57	14.53	7.77	10.04	13.09	5.23	24.62	44.72	10.19	......	10.03
10.04	7.00	8.03	8.38	4.74	2.77	4.82	4.56	8.29	6.88	19.57	18.29	9.82	9.68	9.81
18.06	12.88	12.26	14.54	20.86	8.30	6.53	12.47	14.49	9.73	18.94	13.21	11.75	1.38	11.59
100.07	76.65	51.52	77.64	63.35	72.66	35.91	50.95	77.01	33.42	44.71	33.54	35.81	53.94	36.10
.13	.05	.07	.08	......	......	.16	.08	.08	......	.11	......	.02	......	.02
.14	.15	.15	.15	......	2.77	.47	.53	.16	.03	......	......	.02	......	.02
3.58	5.20	3.77	4.21	6.07	3.46	6.68	6.08	4.25	.99	2.10	1.02	1.22	2.77	1.25
1.93	2.34	1.47	1.94	4.36	10.38	3.42	4.56	2.00	.81	3.05	......	1.27	9.68	1.40
.15	.14	.08	.13	.19	.69	.47	.35	.13	.06	.11	......	.07	......	.07
.02	.02	.02	.02	......	......	......	......	.02	.03	......	......	.02	......	.02
.15	.16	.08	.13	......	.69	.16	.15	.13	.17	.21	......	.18	......	.18
.08	.03	.02	.05	......	......	......	......	.04	.06	......	......	.04	......	.04
6.97	7.50	4.87	6.55	16.31	13.84	13.37	14.60	6.74	8.74	14.52	20.33	10.22	16.60	10.32
3.92	4.50	2.53	3.72	1.33	4.15	3.11	2.51	3.69	1.57	4.21	2.03	2.14	1.38	2.12
1.81	2.10	1.72	1.89	1.14	3.46	1.71	1.67	1.88	.75	2.10	2.03	1.07	6.92	1.16
.01	......	......	......	.19	......	.16	.15	.01	......	......	......	......	......	......
5.99	4.33	1.40	4.07	9.48	9.69	2.02	5.86	4.11	2.93	3.68	1.02	3.05	6.92	3.11
.08	.07	.04	.06	......	......	......	......	.06	......	......	......	......	......	......
.04	.02	.03	.03	.19	......	......	.08	.03	......	......	......	......	......	......
.23	.19	.16	.19	......	......	.16	.08	.19	......	.53	......	.11	......	.11
.53	.46	.43	.48	.38	2.08	.62	.68	.48	.12	.42	......	.18	1.38	.20
1.15	1.08	.98	1.08	2.28	4.84	1.87	2.36	1.11	.46	1.68	......	.71	1.38	.72
77.83	79.24	63.36	74.10	63.16	69.90	58.76	61.75	73.81	85.43	264.49	165.65	125.07	426.00	129.83
1.83	3.96	1.61	2.51	3.22	2.77	11.66	7.30	2.63	2.93	7.68	8.13	4.05	20.75	4.32
8.76	16.12	9.17	11.47	26.93	44.98	77.57	53.69	12.47	4.50	11.68	10.16	6.14	81.60	7.34
.03	.15	.06	.08	.19	......	.31	.23	.08	.09	.42	......	.16	......	.15
5.60	5.88	3.80	5.17	9.86	6.23	9.79	9.43	5.27	5.40	13.15	6.10	7.06	44.26	7.64
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.02	.01	.01	......	......	......	......	.01	......	.21	......	.04	......	.04
1.91	2.19	2.45	2.17	2.66	4.84	4.97	4.03	2.21	2.06	2.95	3.05	2.27	1.38	2.26
4.73	3.99	2.83	3.91	7.39	.69	2.33	4.18	3.92	4.41	4.21	2.03	4.32	2.77	4.29
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.39	.52	.58	.49	.57	......	.16	.30	.48	.49	.11	3.05	.47	......	.46
12.83	11.90	6.60	10.68	12.33	20.07	5.29	9.73	10.66	8.19	11.99	9.15	9.01	13.83	9.09
.75	.68	.26	.58	......	......	......	......	.57	.17	.11	......	.16	......	.15
.60	.39	.21	.41	.76	......	.16	.38	.41	.38	.74	......	.45	......	.44
10.65	12.44	5.71	9.83	8.16	6.23	4.82	6.31	9.75	6.42	14.31	12.20	8.21	16.60	8.35
9.04	11.08	6.38	8.98	9.28	12.46	11.19	10.57	9.02	6.56	13.26	9.15	8.03	8.30	8.04
.18	.16	.10	.15	.57	......	......	.23	.15	.12	.63	......	.22	1.38	.24
62.20	57.08	17.57	47.35	55.01	47.75	13.21	33.76	47.03	37.78	52.50	26.42	40.64	48.41	40.77
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	....	....	....	0.79	....	0.73
76b	Otitis media	8.01	....	6.06	28.32	14.12	27.34
76c	Ears, other diseases of	....	4.98	1.21	3.41	....	3.17
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	....	....	....	1.57	....	1.46
86b	Deviation of nasal septum or spurs	....	....	....	1.57	....	1.46
86c	Sinusitis	4.81	....	3.64	7.34	3.53	7.08
86d	Nasal fossæ, other diseases of	20.83	9.95	18.18	41.44	21.20	40.04
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	4.81	....	3.64	28.58	21.20	28.07
100	Pharynx, diseases of	....	....	....	50.62	53.00	50.79
100a	Tonsils, diseases of	86.54	29.85	72.73	192.24	106.01	186.28
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	....	....	....	.79	....	.73
78	Endocarditis, acute	....	....	....	.52	3.53	.73
79	Valvular heart diseases	....	....	....	9.70	....	9.03
79a	Heart, other organic diseases of	....	....	....	4.20	3.53	4.15
80	Angina pectoris	....	....	....	.52	....	.49
81a	Aneurysm	....	....	....	....	....	....
81	Arteries, other diseases of	....	....	....	.52	....	.49
82	Embolism and thrombosis	....	....	....	.26	....	.24
83a	Hemorrhoids	4.81	9.95	6.06	21.50	28.27	21.97
83b	Varicocele	1.60	....	1.21	5.77	3.53	5.61
83	Veins, other diseases of	1.60	....	1.21	3.93	3.53	3.91
84a	Status lymphaticus	....	....	....	....	....	....
84	Lymphatic system, other diseases of	11.22	19.90	13.33	10.49	14.12	10.74
85a	Cardiac arrhythmias	3.21	....	2.42	.52	....	.49
85b	Cardiac murmur, not organic	....	....	....	.52	....	.49
85c	Cardiac disorders, functional	....	....	....	.26	....	.24
85d	Hemorrhage	....	....	....	1.57	3.53	1.71
85	Circulatory system, other diseases of	1.60	....	1.21	2.36	....	2.20
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	120.19	84.58	111.52	288.22	233.22	284.42
91	Broncho-pneumonia	....	....	....	12.33	24.74	13.18
92	Pneumonia, lobar	17.63	....	13.33	38.29	113.08	43.46
92b	Pneumonia, unclassified	....	....	....	.26	....	.24
93	Pleurisy	8.01	9.95	8.48	24.13	67.13	27.10
95	Gangrene of lung	....	....	....	....	....	....
98	Abscess of lung	....	....	....	....	....	....
96, 97	Respiratory systems, other diseases of	1.60	....	1.21	6.55	14.12	7.08
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	....	....	....	14.16	7.07	13.67
101	Esophagus, diseases of	....	....	....	....	....	....
102	Ulcer of the stomach	....	....	....	.79	3.53	.98
103	Stomach, diseases of (ulcer and cancer excepted)	6.41	4.98	6.06	41.17	38.87	41.02
106	Ankylostomiasis	....	....	....	1.05	....	.98
107a	Intestinal parasites, others	....	....	....	2.88	....	2.68
108	Appendicitis	8.01	4.98	7.27	34.62	17.67	33.47
109	Hernia	1.60	....	1.21	25.70	10.60	24.66
109a	Intestinal obstruction	....	....	....	.52	....	.49
105, 110	Intestines, other diseases of	30.45	19.90	27.88	187.78	74.21	179.93
112	Hydatid tumor of liver	....	....	....	....	....	....

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Reg- and colored.	White	Regulars.	Regulars.		
....	....	....	....	0.48	0.09	....	....	....	....	....
3.31	5.98	3.68	4.83	6.18	5.08	5.05	....	....	0.52	1.27
4.27	1.99	3.95	.85	.48	.79	1.11	....	....	6.27	1.09
....	1.33	.18	3.01	....	2.45	....	....	....	....	....
1.17	.66	1.10	3.75	.48	3.15	8.38	....	....	1.04	....
.32	....	.27	1.18	2.85	1.49	2.84	....	....	.52	....
8.53	3.32	7.81	9.88	7.14	9.37	5.05	....	....	73.67	7.08
.75	1.33	.83	1.40	2.38	1.58	.99	....	....	.52	1.09
8.64	4.65	8.09	16.64	19.98	17.26	4.07	....	....	4.70	2.54
30.51	30.54	30.52	43.70	34.25	41.96	29.84	....	....	10.97	4.54
.11	....	.09	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
.64	1.33	.73	1.40	.48	1.23	.12	....	....	1.57	....
.43	1.99	.64	.75	.95	.79	.49	....	....	1.57	.73
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	.52	....
.11	....	.09	.11	.48	.18	.12	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
6.40	11.29	7.08	6.33	7.14	6.48	6.78	....	....	1.57	1.63
4.16	1.99	3.86	2.79	1.90	2.63	5.05	....	....	.52	....
1.92	....	1.65	1.40	.95	1.31	1.23	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
8.53	4.65	8.00	7.30	7.14	7.27	18.12	....	....	18.29	4.36
.11	....	.09	.32	....	.26	.12	....	....	....	....
....	....	....	....	....	....	.37	....	....	....	....
.32	.66	.37	.21	.48	.26	.25	....	....	....	....
.32	.66	.37	.11	....	.09	.12	....	....	.52	1.09
2.13	1.33	2.02	.85	....	.70	....	....	....	.52	.36
35.95	16.60	33.28	47.14	39.48	45.73	40.19	....	....	34.48	39.03
.21	1.33	.37	.54	2.38	.88	.12	....	....	....	.18
.85	1.99	1.01	2.90	4.76	3.24	.74	....	....	....	3.63
....	....	....	....	....	....	....	....	....	....	....
2.03	1.99	2.02	1.50	1.43	1.49	2.22	....	....	3.66	.73
....	....	....	....	.48	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1.28	5.31	1.84	2.04	1.90	2.01	.74	....	....	3.13	1.82
5.55	6.64	5.70	3.97	6.18	4.38	2.59	....	....	3.66	2.36
....	....	....	....	.48	.09	.12	....	....	....	....
.43	....	.37	.11	....	.09	1.11	....	....	....	.18
21.23	45.82	24.64	8.05	4.76	7.45	12.33	....	....	1.57	10.35
1.81	....	1.56	....	....	....	.49	....	....	9.41	1.82
3.09	1.33	2.85	.75	.95	.79	.86	....	....	2.09	3.27
12.70	25.89	14.51	16.21	15.70	16.12	9.86	....	....	1.57	.73
2.99	5.98	3.40	3.44	2.85	3.33	4.93	....	....	2.09	1.09
.11	....	.09	....	.95	.18	.25	....	....	....	....
95.06	83.01	93.39	81.28	106.56	85.93	71.26	....	....	75.24	70.60
....	....	....	....	....	....	.12	....	....	....	....

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIII. DIGESTIVE SYSTEM, DISEASES OF—con.						
113	Cirrhosis of the liver	0.16	0.05	....	0.05	0.05	0.05
114	Cholelithiasis	.22	.09	....	.08	.09	.09
115	Cholecystitis	1.65	.87	0.72	.87	.90	.90
115a	Liver, other diseases of	1.49	2.06	.56	2.02	1.99	2.00
117	Peritonitis, acute diffuse	....	.03	.05	.03	.03	.03
117a	Peritonitis, acute local	....	.02	....	.02	.02	.02
117b	Peritonitis, chronic	....	.01	.05	.01	.01	.01
117c	Peritoneal adhesions	.16	.35	.17	.35	.34	.34
118	Other diseases of the digestive system	.32	.24	.22	.24	.24	.24
118a	Pancreatitis	.10	.00	....	.00	.01	.01
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	.32	.49	1.06	.51	.50	.50
120	Nephritis, chronic (Bright's disease)	1.24	.73	1.11	.75	.77	.76
122	Kidney and annexa, other diseases of	1.05	.73	.94	.74	.75	.75
123	Calculi, of urinary passages	1.11	.42	.22	.42	.45	.45
124	Bladder, diseases of	.51	3.19	5.79	3.26	3.13	3.11
125	Urethra, diseases of	.41	.84	1.50	.86	.84	.83
126	Prostate, diseases of	.25	.20	.11	.20	.20	.20
127	Male genital organs, diseases of (nonvenereal)	.86	4.47	6.07	4.52	4.35	4.35
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	.03	.02	....	.02	.02	.02
143	Furuncle	3.62	8.88	5.34	8.78	8.54	8.67
144	Acute abscess	2.76	5.78	3.95	5.73	5.59	5.63
144a	Cellulitis	2.28	4.85	2.39	4.78	4.66	4.71
145	Skin and annexa, other diseases of	6.03	18.04	14.58	17.95	17.39	17.47
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	.16	.35	.67	.36	.35	.35
146a	Bones, other diseases of (tuberculosis excepted)	.41	.91	1.22	.91	.89	.89
147	Joint, diseases of (rheumatism and tuberculosis excepted)	.79	1.59	1.56	1.59	1.55	1.55
149	Pes planus	.73	8.09	7.40	8.07	7.73	7.65
149a	Organs of locomotion, other diseases of	3.59	10.64	10.35	10.63	10.30	10.24
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	1.94	7.90	11.41	8.00	7.71	7.64
189	Not specified or ill-defined diseases	12.92	35.59	50.21	36.00	34.91	34.70
	Total for diseases	405.64	875.75	1,069.24	881.18	858.85	856.04
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	50.71	93.42	106.60	93.79	91.76	91.56
03	Bites	....	.13	.11	.13	.12	.13
04	Burns	.57	1.59	1.06	1.57	1.52	1.52
05, 06	Burns, chemical and X-ray	.06	.34	.11	.33	.32	.32
09	Compression (brain)	....	.01	....	.01	.01	.01
10	Concussion (brain)	1.11	.65	.44	.64	.66	.66
12	Contusion	1.11	3.36	.61	3.28	3.18	3.15
14	Crushing	.16	.43	.28	.42	.41	.40
17-20	Dermatitis from traumatism	1.90	2.17	.61	2.13	2.12	2.10
21	Dislocation of joint	1.14	1.85	1.67	1.84	1.81	1.80
62	Dislocation, articular, cartilage of knee	.19	.17	....	.16	.17	.17

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.09	0.05	0.02	0.05	......	......	......	......	0.05	......	......	......	......	......	......
.11	.07	.07	.08	......	......	......	......	.08	0.06	0.21	......	0.09	......	0.09
1.08	.95	.51	.87	0.38	......	0.47	0.38	.86	.35	.74	1.02	.45	......	.44
2.56	2.18	1.01	1.97	.76	......	.62	.61	1.94	1.16	.74	1.02	1.07	......	1.05
.02	.04	.01	.02	......	......	......	......	.02	......	......	......	......	1.38	.02
.02	.03	.02	.02	......	......	......	......	.02	.03	......	......	.02	......	.02
.02	.01	.01	.01	......	0.69	......	.08	.01	......	......	......	......	......	......
.35	.46	.29	.37	......	......	......	......	.36	.20	.11	......	.18	......	.18
.23	.24	.21	.23	.57	.69	......	.30	.23	.15	.53	1.02	.24	......	.24
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.53	.49	.38	.47	.57	......	1.09	.76	.48	.49	.84	......	.56	......	.55
.78	.75	.57	.71	1.14	......	.93	.91	.72	.29	1.05	......	.45	4.15	.50
.84	.75	.53	.72	1.52	2.08	.16	.91	.72	.55	.84	......	.60	......	.59
.48	.48	.28	.43	.57	......	......	.23	.42	.17	.32	......	.20	......	.20
3.35	3.87	2.35	3.24	6.07	4.15	3.11	4.41	3.27	.93	3.89	......	1.54	6.92	1.62
.94	.81	.71	.83	1.14	2.08	1.40	1.37	.84	.44	.32	......	.40	2.77	.44
.18	.24	.13	.19	......	1.38	......	.15	.19	.17	.53	......	.24	......	.24
5.60	4.62	2.90	4.47	8.35	11.07	4.04	6.54	4.52	3.31	7.57	2.03	4.18	8.30	4.25
.02	.04	.02	.03	......	......	......	......	.02	......	......	......	......	......	......
12.66	7.83	5.21	8.78	3.41	2.08	1.09	2.13	8.63	4.94	7.05	2.03	5.32	6.92	5.34
7.53	5.82	3.79	5.83	3.03	5.54	2.18	2.89	5.76	4.36	5.16	2.03	4.47	9.68	4.56
6.27	4.66	2.21	4.52	1.90	1.38	.47	1.14	4.44	4.41	6.31	2.03	4.76	......	4.69
20.18	18.86	11.88	17.29	13.08	21.45	8.71	11.86	17.16	16.64	20.20	11.18	17.27	15.21	17.24
.36	.34	.38	.36	.57	.69	.62	.61	.37	.17	.11	......	.16	1.38	.18
.80	1.08	.92	.93	1.53	1.38	1.40	1.44	.94	.67	.42	......	.60	......	.59
1.44	1.74	1.59	1.59	1.14	4.15	2.18	1.98	1.60	1.19	1.79	......	1.29	......	1.27
8.04	9.71	7.28	8.40	8.16	13.15	9.33	9.28	8.43	3.31	14.20	1.02	5.56	1.38	5.50
10.35	12.43	9.09	10.71	12.14	11.76	7.62	9.89	10.69	7.14	14.52	8.13	8.72	12.45	8.75
10.04	9.29	4.76	8.23	18.40	25.61	3.89	12.09	8.32	2.85	5.26	3.05	3.36	2.77	3.35
41.55	34.95	31.10	36.17	50.27	41.52	54.56	51.41	36.53	23.20	39.56	25.41	26.71	92.67	27.75
940.19	974.50	701.56	882.54	1,068.47	1,517.65	959.27	1,064.41	886.81	569.18	1,280.27	771.34	724.05	1,994.47	714.17
127.45	90.30	49.80	91.68	148.90	109.34	38.24	90.42	91.65	76.40	99.42	76.22	81.26	278.01	84.38
.22	.12	.02	.13	......	......	......	......	.13	.03	.32	......	.09	......	.09
2.32	1.54	.58	1.54	1.52	2.08	.47	1.06	1.53	1,48	2.84	......	1.74	1.38	1.73
.48	.30	.19	.34	......	......	.16	.08	.33	.26	.21	......	.24	......	.24
.01	.02	......	.01	......	......	......	......	.01	......	.11	......	.02	......	.02
.94	.62	.26	.63	.38	......	.16	.23	.62	.67	.32	......	.58	......	.57
2.95	4.37	2.82	3.41	.95	2.77	......	.68	3.35	2.79	7.68	4.06	3.85	......	3.79
.38	.69	.16	.43	.38	......	.16	.23	.42	.38	.53	......	.40	1.38	.42
3.05	2.74	.63	2.23	1.14	2.08	......	.68	2.20	.61	.11	......	.49	......	.48
2.44	1.91	1.02	1.84	3.22	1.38	.16	1.52	1.83	1.31	1.89	2.03	1.45	2.77	1.47
.22	.18	.06	.16	......	......	......	......	.16	.17	.32	......	.20	......	.20

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	XIII. DIGESTVE SYSTEM, DISEASES OF—con.						
113	Cirrhosis of the liver	....	....	....	....	....	....
114	Cholelithiasis	....	....	....	0.26	....	0.24
115	Cholecystitis	1.60	....	1.21	2.09	....	1.95
115a	Liver, other diseases of	....	....	....	13.64	3.53	12.94
117	Peritonitis, acute diffuse	....	....	....	....	....	....
117a	Peritonitis, acute local	....	....	....	....	....	....
117b	Peritonitis, chronic	....	....	....	....	....	....
117c	Peritoneal adhesions	....	....	....	.52	....	.49
118	Other diseases of the digestive system	12.82	....	9.70	.79	....	.73
118a	Pancreatitis	....	....	....	....	....	....
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENERAL DISEASES OF.						
119	Nephritis, acute	1.60	....	1.21	1.83	....	1.71
120	Nephritis, chronic (Bright's disease)	....	....	....	1.57	7.07	1.95
122	Kidney and annexa, other diseases of	1.60	....	1.21	2.36	3.53	2.44
123	Calculi, of urinary passages	....	....	....	2.09	....	1.95
124	Bladder, diseases of	3.21	....	2.42	7.87	17.67	8.55
125	Urethra, diseases of	3.21	....	2.42	3.15	3.53	3.17
126	Prostate, diseases of	....	....	....	.26	....	.24
127	Male genital organs, diseases of (nonvenereal)	....	....	....	17.05	7.07	16.35
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	....	....	....	....	....	....
143	Furuncle	14.42	....	10.91	25.44	3.53	23.93
144	Acute abscess	4.81	4.98	4.85	17.31	7.07	16.60
144a	Cellulitis	6.41	....	4.85	12.06	17.67	12.45
145	Skin and annexa, other diseases of	8.01	14.92	9.70	60.06	3.53	56.15
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	....	....	....	1.57	7.07	1.95
146a	Bones, other diseases of (tuberculosis excepted)	....	....	....	2.88	3.53	2.93
147	Joint, diseases of (rheumatism and tuberculosis excepted)	....	....	....	6.82	7.07	6.84
149	Pes planus	1.60	9.95	3.64	22.55	7.07	21.48
149a	Organs of locomotion, other diseases of	4.81	9.95	6.06	30.94	14.12	29.78
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	....	....	....	16.77	17.67	16.84
189	Not specified or ill-defined diseases	35.26	4.98	27.88	118.52	166.08	121.82
	Total for diseases	557.69	507.46	545.45	2,921.32	2,901.06	2,919.92
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	67.31	44.77	61.82	221.08	155.48	216.55
03	Bites	1.60	....	1.21	....	....	....
04	Burns	....	....	....	4.98	7.07	5.13
05, 06	Burns, chemical and X-ray	....	....	....	.26	3.53	.49
09	Compression (brain)	....	....	....	....	....	....
10	Concussion (brain)	....	....	....	2.62	....	2.44
12	Contusion	3.21	....	2.42	7.34	....	6.83
14	Crushing	....	....	....	1.05	3.53	1.22
17-20	Dermatitis from traumatism	....	....	....	4.20	3.53	4.15
21	Dislocation of joint	....	....	....	4.72	....	4.39
62	Dislocation, articular, cartilage of knee	....	....	....	.79	....	.73

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars and colored.	White	Regulars.	Regulars.		
....	....	....	....	....	....	0.12	....	....	....	....
....	....	....	....	....	....	.37	....	....	....	....
2.03	2.66	2.11	0.54	1.90	0.79	1.85	....	....	....	0.36
6.72	....	5.79	1.83	.48	1.58	3.08	....	....	7.84	.73
.11	....	.09	....	....	....	.25	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.32	1.99	.55	.21	....	.18	.25	....	....	....	....
....	....	....	.11	....	.09	.12	....	....	.52	.54
.11	....	.09	....	....	....	....	....	....	....	....
.43	5.98	1.19	....	....	....	1.48	....	....	....	.36
1.07	1.33	1.10	.75	.48	.70	3.21	....	....	....	.18
.96	1.99	1.10	.42	.48	.44	1.60	....	....	....	.54
.53	....	.46	.32	.48	.35	.74	....	....	1.57	....
4.48	14.61	5.88	4.83	6.66	5.17	3.21	....	....	1.57	.18
1.60	.66	1.47	2.47	2.38	2.45	.37	....	....	....	.18
.11	....	.09	.75	....	.61	.12	....	....	....	....
4.37	1.33	3.95	3.33	6.18	3.85	2.34	....	....	14.11	1.82
....	....	....	....	....	....	....	....	....	....	....
10.48	35.19	13.88	18.47	4.28	15.85	13.81	....	....	13.06	23.05
6.19	11.29	6.89	3.11	2.85	3.07	6.53	....	....	17.76	6.53
8.53	1.33	7.54	13.31	9.99	12.70	10.11	....	....	9.40	8.17
30.40	34.53	30.98	26.95	18.55	25.40	29.72	....	....	24.56	24.51
.11	....	.09	.21	.48	.26	.74	....	....	....	....
.43	....	.37	.43	.95	.53	1.11	....	....	2.09	.18
.85	....	.73	1.40	....	1.14	1.85	....	....	2.09	1.09
3.41	1.33	3.13	3.76	1.90	3.42	5.30	....	....	....	.36
10.24	13.28	10.66	10.52	9.99	10.42	8.01	....	....	6.27	4.17
4.59	12.62	5.70	7.41	9.51	7.80	11.59	....	....	.52	1.09
36.49	30.54	35.66	26.84	30.94	27.59	15.41	....	....	11.49	17.25
799.53	1,030.54	831.51	606.46	616.08	608.23	720.26	....	....	946.18	481.76
114.69	208.50	127.68	162.78	75.16	146.65	115.52	....	....	59.56	77.69
.53	1.33	.64	.11	....	.09	.12	....	....	....	.36
1.92	.66	1.75	1.82	.47	1.58	1.73	....	....	....	1.63
.53	....	.46	.75	....	.61	.62	....	....	1.04	....
....	....	....	....	....	....	....	....	....	....	....
.43	2.66	.73	1.72	.47	1.49	.37	....	....	....	.18
1.71	.66	1.56	.43	.47	.44	.62	....	....	....	.91
.43	....	.37	.64	....	.52	.12	....	....	....	....
2.56	....	2.21	5.26	.47	4.38	2.83	....	....	....	.91
1.49	4.65	1.93	2.90	.47	2.45	2.59	....	....	1.57	.91
....	....	....	.11	....	.09	.74	....	....	....	....

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
22, 23	Drowning (except suicides)	....	0.04	....	0.04	0.03	0.03
28	Epiphyseal separation	....	.02	....	.02	.02	.02
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	0.13	.37	0.61	.37	.36	.38
34	Foreign bodies	.13	.27	.33	.27	.26	.26
36	Fracture, simple	7.52	8.22	5.23	8.14	8.11	8.06
35	Fracture, compound	.51	.58	.39	.57	.57	.56
38–48	Fracture, faulty union	.06	.12	.17	.12	.12	.12
0x	Fracture near joint, with dislocation	....	.02	....	.02	.02	.02
37	Fracture, comminuted	.25	.26	.28	.26	.26	.26
50	Gases, deleterious, absorption of	.25	.05	....	.04	.05	.05
51	Gunshot wound	.60	1.07	1.34	1.08	1.06	1.06
52–56	Hemorrhage and results	.06	.10	.05	.09	.09	.09
59	Homicides	.03	.01	.17	.02	.02	.02
66	Poisoning by food	1.08	1.06	.44	1.04	1.04	1.03
67	Poisoning, other acute	.19	.24	.17	.24	.24	.23
96	Secondary result of injury	.86	5.13	9.13	5.24	5.03	4.99
73	Sprain of joint	11.07	18.79	21.71	18.87	18.51	18.43
75	Strain	1.30	2.98	4.45	3.02	2.94	2.93
79	Suicide	.03	.05	.11	.05	.05	.05
81	Synovitis, traumatic, cause undetermined	1.20	.96	.72	.96	.97	.96
85	Venomous bites and stings	.41	.36	.44	.36	.36	.37
93	Wounds, multiple	.09	.08	.17	.08	.08	.08
94	Wounds, penetrating	.19	.18	.50	.19	.19	.19
92	Wounds, extensive	.03	.01	....	.01	.01	.01
95	Wounds, perforating	.35	.94	1.72	.95	.93	.92
86–91	Wounds, others	13.04	31.57	42.53	31.88	30.99	31.05
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	5.04	9.20	10.91	9.25	9.05	9.05
80	Sunstroke	....	.04	.11	.04	.04	.04
	Total for diseases	405.64	875.75	1,069.24	881.18	858.85	856.04
	Total for external causes	50.71	93.42	106.60	93.79	91.76	91.56
	Grand total	456.35	969.16	1,175.84	974.97	950.62	947.60
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	50.71	93.42	106.60	93.79	91.76	91.56
01–19	Total military agents	3.46	10.35	14.58	10.47	10.14	10.20
01	Bayonet	.16	.34	.39	.34	.33	.34
02	Club	.32	.78	1.84	.81	.78	.80
03	Explosion of mine	....	.00	....	.00	.00	.00
04	Gas, asphyxiative	....	.01	....	.01	.01	.01
05	Gas, poisonous	.16	.02	....	.02	.02	.02
06	Flaming fluid	.10	.08	.06	.08	.08	.08
07	Hand grenade	.06	.09	....	.09	.08	.08

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
......	0.12	......	0.04	......	......	......	......	0.04	......	......	......	......	......	......
0.04	......	0.01	.01	......	......	......	......	.01	0.03	......	......	0.02	......	0.02
.49	.35	.14	.34	0.95	......	0.16	0.46	.34	.46	0.11	......	.38	......	.37
.32	.24	.16	.25	.38	......	.31	.30	.25	.44	......	......	.33	......	.33
10.90	7.87	3.35	7.63	6.83	6.23	2.02	4.41	7.55	8.57	8.00	4.06	8.35	6.92	8.32
.78	.55	.16	.52	.95	.69	......	.46	.51	.84	1.05	......	.87	1.38	.88
.23	.11	.02	.13	.38	.69	......	.23	.13	.06	.11	......	.07	......	.07
.03	.02	.01	.02	......	......	......	......	.02	.06	.11	......	.07	......	.07
.36	.19	.11	.22	.57	......	.16	.30	.23	.23	.11	......	.20	......	.20
.05	.02	......	.03	......	......	......	......	.02	.06	.11	7.11	.22	......	.22
1.09	1.66	.18	1.02	2.28	4.15	.16	1.44	1.03	1.95	.95	......	1.69	1.38	1.69
.14	.08	.04	.09	......	......	......	......	.09	.12	......	......	.09	......	.09
.03	.01	......	.01	.57	......	......	.23	.02	.03	......	......	.02	......	.02
1.32	1.35	.34	1.04	1.52	......	......	.61	1.03	.44	.63	......	.47	......	.46
.40	.18	.05	.22	.19	......	......	.08	.22	.06	.21	......	.09	......	.09
4.62	6.09	6.03	5.55	11.57	11.76	11.97	11.79	5.70	1.25	2.95	5.08	1.69	4.15	1.73
25.27	16.38	13.48	18.69	30.54	19.38	4.82	16.73	18.65	13.15	16.52	15.24	13.91	26.28	14.11
4.18	2.48	1.80	2.88	7.21	1.38	.31	3.19	2.89	2.09	4.73	2.03	2.65	15.21	2.85
.05	.05	.04	.05	.19	.69	......	.15	.05	.03	......	......	.02	......	.02
1.32	.98	.53	.97	1.33	2.77	.16	.91	.97	.75	1.89	2.03	1.02	......	1.01
.49	.37	.02	.31	.19	......	......	.08	.30	.15	.42	......	.20	......	.20
.11	.07	.01	.07	......	.69	......	.08	.07	.17	.11	......	.16	......	.15
.23	.20	.02	.16	.95	1.38	......	.53	.17	.55	.11	......	.45	......	.44
.02	......	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
1.18	1.30	.09	.90	3.41	2.77	.31	1.82	.93	1.57	.84	......	1.38	1.38	1.38
48.16	28.06	12.35	30.62	59.94	34.60	8.55	32.02	30.65	28.19	27.88	30.49	28.18	186.72	30.69
12.56	9.02	5.12	9.14	11.19	13.84	8.24	10.04	9.16	7.46	18.31	4.06	9.68	29.05	9.99
.07	.05	......	.04	.19	......	......	.08	.04	......	......	......	......	......	......
940.23	974.50	701.59	882.51	1,068.47	1,517.65	959.27	1,064.41	886.81	569.18	1,280.27	771.34	724.05	1,994.47	744.17
127.46	90.30	49.80	91.69	148.90	109.34	38.24	90.42	91.65	76.40	99.42	76.22	81.26	278.01	84.38
1,067.69	1,064.80	751.39	974.19	1,217.37	1,626.99	997.51	1,154.83	978.46	645.58	1,379.69	847.56	805.31	2,272.48	828.55
127.45	90 30	49.80	91.68	148.90	109.34	38.24	90.42	91.65	76.40	99.42	76 22	81.26	278.01	84.38
13.20	11.27	3.78	9.77	21.81	25.61	7.31	15.13	9.89	12.69	10.84	9.15	12 22	9.68	12.18
.48	.36	.08	.32	.19	2.77	......	.38	.32	.38	.32	......	.36	......	.35
1.02	.76	.23	.70	2.66	4.84	.16	1.67	.72	1.07	.63	......	.96	1.38	.96
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	.21	5.08	.16	......	.15
.12	.09	.03	.08	.19	......	......	.08	.08	.06	......	......	.04	......	.04
.05	.02	.02	.03	......	......	......	......	.03	.78	.21	......	.65	......	.64

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
22, 23	Drowning (except suicides)						
28	Epiphyseal separation						
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	1.60		1.21	1.05	3.53	1.22
34	Foreign bodies				.52		.49
36	Fracture, simple	3.21		2.42	18.36		17.09
35	Fracture, compound				1.84		1.71
38–48	Fracture, faulty union				.26		.24
ox	Fracture near joint with dislocation						
37	Fracture comminuted				.52		.49
50	Gases deleterious, absorption of				1.31		1.22
51	Gunshot wound	1.60		1.21	.79	3.53	.98
52–56	Hemorrhage and results				.52		.49
59	Homicides						
66	Poisoning by food				1.57		1.46
67	Poisoning, other acute				1.05		.98
96	Secondary result of injury	6.41		4.85	7.87	7.07	7.81
73	Sprain of joint	11.22	14.92	12.12	46.42	38.87	45.90
75	Strain				6.82	7.07	6.83
79	Suicide				.26		.24
81	Synovitis, traumatic, cause undetermined				1.84		1.71
85	Venomous bites and stings				1.05		.98
93	Wounds, multiple				.26	3.53	.49
94	Wounds, penetrating						
92	Wounds, extensive						
95	Wounds, perforating	1.60		1.21	2.36		2.20
86–91	Wounds, others	27.24	29.85	27.88	81.30	67.14	80.32
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99.	Traumatisms, others	9.62		7.27	19.14	7.07	18.31
80	Sunstroke						
	Total for diseases	557.69	507.46	545.45	2,921.32	2,901.06	2,919.92
	Total for external causes	67.31	44.77	61.82	221.08	155.48	216.55
	Grand total	625.00	552.23	607.27	3,142.41	3,056.54	3,136.47
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	67.31	44.77	61.82	221.08	155.48	216.55
01–19	Total military agents	9.62		7.27	28.06	17.67	27.34
01	Bayonet				.52		.49
02	Club				2.36	3.53	2.44
03	Explosion of mine						
04	Gas, asphyxiative				.26		.24
05	Gas, poisonous				.26		.24
06	Flaming fluid				.52		.49
07	Hand grenade				.26		.24

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Reg- and colored.	White	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	0.11	....	0.09	0.12	....	....	3.13	....
1.28	0.66	1.19	.64	1.43	.79	.62	....	....	.52	2.00
.32	.66	.37	1.07	.47	.96	.49	....	....	.52	.18
13.87	8.63	13.14	25.34	8.56	22.25	17.01	....	....	2.09	3.81
.85	....	.73	2.15	....	1.75	.62	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1.49	.66	1.38	1.07	....	.88	.86	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.96	1.33	1.01	.75	.47	.70	1.48	....	....	1.04	1.27
.11	....	.09	.21	.47	.26	.25	....	....	.52	....
.11	....	.09	....	....	....	....	....	....	....	....
.96	....	.83	4.51	....	3.68	1.23	....	....	.52	....
1.39	....	1.19	.54	.95	.61	.37	....	....	....	....
1.81	1.99	1.84	1.50	.47	1.31	2.22	....	....	....	1.09
19.74	54.45	24.54	35.11	26.16	33.46	20.22	....	....	10.97	11.62
4.91	14.61	6.25	7.73	1.43	6.57	2.34	....	....	.52	1.63
....	....	....	.21	....	.17	....	....	....	....	....
.64	.66	.64	.54	....	.44	.74	....	....	....	.73
1.39	3.32	1.65	.75	.95	.79	2.71	....	....	.52	1.63
.11	.66	.18	....	....	....	.37	....	....	....	.18
.32	.66	.37	....	.47	.09	.37	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.53	1.99	.73	.43	1.43	.61	1.11	....	....	1.04	.18
44.06	84.99	49.73	60.02	26.16	53.79	44.51	....	....	30.82	37.76
10.24	22.58	11.95	6.23	3.33	5.69	8.14	....	....	4.70	10. 7
....	.66	.09	....	....	....	....	....	....	....	....
799.53	1,030.54	831.51	606.46	616.08	608.23	720.26	....	....	946.18	481.76
114.69	208.50	127.68	162.78	75.16	146.65	115.52	....	....	59.56	77.69
914.22	1,239.04	959.18	769.25	691.24	754.88	835.78	....	....	1,005.75	559.45
114.69	208.50	127.68	162.78	75.16	146.65	115.52	....	....	59.56	77.69
16.22	16.60	16.27	12.56	12.37	12.53	21.82	....	....	10.44	17.06
.53	....	.46	.43	.95	.52	.98	....	....	.52	1.09
3.09	3.32	3.13	1.29	1.90	1.40	1.11	....	....	1.57	2.54
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	.12	....	....	....	.18
.43	....	.37	.54	....	.44	....	....	....	....	....

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
08	Knife	0.16	1.04	2.17	1.07	1.03	1.03
09	Pistol ball	.63	1.02	2.56	1.07	1.05	1.04
10	Rifle ball	.22	1.37	2.84	1.41	1.35	1.35
11	Saber	....	.00	....	.00	.00	.00
12	Shell	.16	.09	....	.09	.09	.09
13	Shrapnel	.09	.03	....	.03	.03	.03
14	Cutting or piercing instruments	1.33	5.47	4.73	5.45	5.25	5.29
15	Secondary missile	.06	.01	....	.01	.01	.01
16–19	Others, military agents	....	.01	....	.01	.01	.01
20–29	Total by sinking ships	.06	....	....	....	.00	.00
21	Sinking ships by storm	.03	....	....	....	.00	.00
22	Sinking ships by submarine	.03	....	....	....	.00	.00
30–39	Total by air machines	1.33	.19	....	.19	.24	.24
30	Aeroplane	1.33	.19	....	.18	.24	.23
31	Balloon	....	.01	....	.01	.01	.01
40–49	Total by vehicles and animals	5.74	10.93	11.52	10.94	10.70	10.60
40	Automobile	1.84	2.50	1.95	2.48	2.45	2.42
41	Motor cycle	1.52	1.01	.33	.99	1.02	1.01
42	Railroad accident	.22	.84	1.78	.87	.84	.83
43	Street-car accident	.19	.24	.22	.24	.24	.24
44	Others by vehicles	.09	.59	.72	.59	.57	.57
45	Animals	1.87	5.74	6.51	5.76	5.58	5.53
50–59	Total by industrial agents	15.93	24.48	33.45	24.75	24.32	24.29
50	Conflagrations	....	.02	....	.02	.02	.02
51	Crushing	2.60	4.99	10.52	5.15	5.03	5.03
52	Electricity	.03	.02	....	.02	.02	.02
53	Fall	12.76	18.17	21.26	18.26	18.00	17.97
54	Falling timbers	.06	.19	.11	.19	.18	.18
55	Fire	.22	.41	.33	.41	.40	.40
56	Splinters	.19	.42	.33	.42	.41	.40
57	Machinery	.06	.26	.89	.27	.26	.27
60–69	Total for extreme temperatures	.06	.29	.22	.29	.28	.28
60	Excessive cold	....	.03	....	.03	.03	.03
61	Heat	.06	.26	.22	.26	.25	.25
70–79	Total by natural causes	1.17	2.19	1.73	2.18	2.13	2.13
70	Landslides	....	.01	.06	.01	.01	.01
71	Lightning	....	.01	....	.01	.01	.01
72	Stones	.03	.17	.39	.18	.17	.17
73	Strangulations	....	.00	....	.00	.00	.01
74	Falling earth	....	.05	....	.05	.05	.05
75	Jumping	.92	1.18	.83	1.17	1.16	1.16
76	Hot liquid	.22	.77	.45	.76	.73	.73
80–81	Total by chemicals and poisons	.22	.19	.06	.19	.19	.19
80	Chemicals	.19	.17	.06	.17	.17	.17
81	Poison	.03	.02	....	.02	.02	.02
99	All others from external agents	22.72	44.79	45.03	44.79	43.76	43.63

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
1.40	1.03	0.45	0.99	3.03	2.77	1.09	2.05	1.01	0.75	0.84	1.02	0.78	......	0.77
1.30	1.39	.23	1.02	4.74	5.54	.93	2.97	1.06	1.45	.74	......	1.27	1.38	1.27
1.42	2.20	.41	1.40	4.93	5.54	1.87	3.50	1.45	1.28	.95	......	1.18	......	1.16
......	......	.01	.00	......	......	......	......	.00	.03	......	......	.02	......	.02
.03	.02	.01	.02	......	......	......	......	.02	1.28	.21	......	1.02	......	1.01
.01	.02	......	.01	......	......	......	......	.01	.35	......	......	.27	......	.26
7.35	5.34	2.32	5.17	6.07	4.15	3.26	4.49	5.16	5.11	6.63	3.05	5.39	6.92	5.41
.01	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	.15	.11	......	.13	......	.13
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.55	.02	.01	.21	......	......	......	......	.20	.15	......	......	.11	......	.11
.53	.02	.01	.20	......	......	......	......	.19	.15	......	......	.11	......	.11
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
18.18	9.24	4.31	10.98	18.02	7.61	4.20	10.11	10.96	9.00	8.31	11.18	8.90	22.13	9.11
3.35	2.67	1.30	2.51	2.09	4.84	1.09	1.90	2.50	2.15	1.26	4.06	2.00	6.92	2.08
1.48	.81	.39	.93	......	......	......	......	.91	.93	.32	4.06	.87	4.15	.92
.75	1.24	.48	.84	3.03	.69	2.02	2.28	.88	1.36	.32	1.02	1.14	2.77	1.16
.29	.33	.14	.26	......	.69	.31	.23	.26	.06	.11	......	.07	......	.07
.78	.60	.29	.57	.57	.69	.16	.38	.57	.87	.63	1.02	.82	8.30	.94
11.53	3.59	1.71	5.86	12.33	.69	.62	5.32	5.85	3.63	5.68	1.02	4.01	......	3.94
36.92	21.73	10.54	23.86	44.95	20.76	7.93	24.18	23.87	22.71	20.20	30.49	22.35	124.48	23.96
.05	.02	.01	.03	......	......	......	......	.02	......	......	......	......	......	......
8.12	4.16	1.52	4.80	11.00	2.77	1.40	5.40	4.81	4.27	3.68	13.21	4.34	91.29	5.72
.03	.04	.01	.03	......	......	......	......	.02	......	......	......	......	......	......
26.81	16.32	8.46	17.76	32.44	16.61	5.29	17.41	17.75	17.36	15.89	15.24	17.00	29.05	17.20
.30	.17	.06	.18	.19	.69	......	.15	.18	.17	......	1.02	.16	......	.15
.60	.39	.17	.40	.57	......	.31	.38	.40	.32	.42	1.02	.36	1.38	.37
.63	.42	.22	.44	.57	......	.16	.30	.43	.29	.11	......	.24	......	.24
.37	.23	.09	.24	.19	.69	.78	.53	.25	.29	.11	......	.24	2.77	.28
.41	.27	.17	.29	.19	.69	.16	.23	.29	.26	.32	......	.27	......	.26
.01	.02	.07	.03	......	......	......	......	.03	......	......	......	......	......	......
.40	.25	.10	.26	.19	.69	.16	.23	.26	.26	.32	......	.27	......	.26
2.85	1.99	1.68	2.21	3.41	1.38	.31	1.67	2.19	1.54	2.21	......	1.65	......	1.62
.01	......	......	.00	.19	......	......	.08	......	......	.00	......	......	......	......
.02	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.20	.19	.08	.16	.95	......	.16	.46	.16	.35	.21	......	.31	......	.31
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.09	.05	.01	.05	......	......	......	......	.05	.03	......	......	.02	......	.02
1.43	.99	1.27	1.23	1.52	......	.16	.68	1.22	.52	.32	......	.47	......	.46
1.10	.74	.32	.75	.76	1.38	......	.46	.74	.64	1.68	......	.85	......	.83
.27	.20	.05	.18	......	......	......	......	.18	.09	......	......	.07	......	.07
.25	.18	.04	.17	......	......	......	......	.16	.09	......	......	.07	......	.07
.02	.02	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
55.07	45.58	29.26	44.18	60.51	53.29	18.34	39.09	44.06	29.97	57.55	25.41	35.70	121.71	37.06

TABLE XV.—*Admissions to sick report, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
08	Knife	1.60	....	1.21	3.41	3.53	3.42
09	Pistol ball	1.60	....	1.21	2.36	....	2.20
10	Rifle ball	3.21	....	2.42	2.62	3.53	2.69
11	Saber	....	....	....	....	....	....
12	Shell	....	....	....	.26	....	.24
13	Shrapnel	....	....	....	....	....	....
14	Cutting or piercing instruments	3.21	....	2.42	15.21	7.07	14.65
15	Secondary missile	....	....	....	....	....	....
16–19	Others, military agents	....	....	....	....	....	....
20–29	Total by sinking ships	....	....	....	....	....	....
21	Sinking ships by storm	....	....	....	....	....	....
22	Sinking ships by submarine	....	....	....	....	....	....
30–39	Total by air machines	....	....	....	1.05	....	.98
30	Aeroplane	....	....	....	1.05	....	.98
31	Balloon	....	....	....	....	....	....
40–49	Total by vehicles and animals	9.62	4.98	8.48	12.85	3.53	12.21
40	Automobile	....	....	....	6.03	....	5.61
41	Motor cycle	....	....	....	.79	....	.73
42	Railroad accident	....	....	....	1.84	....	1.71
43	Street-car accident	....	....	....	....	3.53	.24
44	Others by vehicles	....	....	....	.52	....	.49
45	Animals	9.62	4.98	8.48	3.67	....	3.42
50–59	Total by industrial agents	28.84	29.85	29.09	64.25	60.07	63.96
50	Conflagrations	....	....	....	.26	....	.24
51	Crushing	8.01	4.98	7.27	14.42	31.80	15.62
52	Electricity	....	....	....	....	....	....
53	Fall	19.23	24.88	20.61	46.16	24.73	44.68
54	Falling timbers	....	....	....	1.31	....	1.22
55	Fire	....	....	....	.52	....	.49
56	Splinters	1.60	....	1.21	.26	....	.24
57	Machinery	....	....	....	1.31	3.53	1.46
60–69	Total for extreme temperatures	....	....	....	1.05	....	.98
60	Excessive cold	....	....	....	....	....	....
61	Heat	....	....	....	1.05	....	.98
70–79	Total by natural causes	....	....	....	7.3	10.60	7.57
70	Landslides	....	....	....	....	....	....
71	Lightning	....	....	....	....	....	....
72	Stones	....	....	....	.79	3.53	.98
73	Strangulations	....	....	....	....	....	....
74	Falling earth	....	....	....	....	....	....
75	Jumping	....	....	....	3.67	3.53	3.66
76	Hot liquid	....	....	....	2.88	3.53	2.93
80–81	Total by chemicals and poisons	....	....	....	.79	....	.73
80	Chemicals	....	....	....	.52	....	.49
81	Poison	....	....	....	.26	....	.24
99	All others from external agents	19.23	9.95	16.97	105.69	63.60	102.78

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[1] Mean strength for China, transports, and others is incomplete, consequently the ratios are incorrect.

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1.914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
2.03	2.66	2.11	1.61	3.33	1.93	2.59	....	....	1.04	1.82
.75	2.66	1.01	.32	.95	.44	.62	....	....	.52	.73
.32	.66	.37	.54	1.43	.70	1.85	....	....	1.57	.91
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
8.96	7.30	8.73	7.73	3.81	7.01	14.55	....	....	5.22	9.80
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
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....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
8.85	32.53	12.13	21.05	3.33	17.78	8.38	....	....	3.66	1.09
1.60	.66	1.47	4.08	1.90	3.68	1.97	....	....	....	....
1.49	....	1.29	6.98	1.43	5.96	.25	....	....	....	....
.21	....	.18	.32	....	.26	.12	....	....	.52	....
.32	....	.27	.11	....	.09	....	....	....	....	....
.32	1.33	.46	.97	....	.79	.25	....	....	1.04	.18
4.91	30.54	8.46	8.59	....	7.01	5.79	....	....	2.09	.91
31.69	84.99	39.07	37.69	19.98	34.42	35.63	....	....	20.90	21.78
....	....	....	....	....	....	....	....	....	....	....
7.79	25.23	10.20	9.99	1.90	8.50	8.14	....	....	1.57	6.35
....	....	....	.11	....	.09	....	....	....	....	....
22.30	56.44	27.02	26.09	16.65	24.35	25.52	....	....	18.81	13.79
.11	....	.09	.11	....	.09	.49	....	....	....	.36
.53	....	.46	.64	....	.53	.86	....	....	....	.54
.43	....	.37	.43	.95	.53	.12	....	....	....	.36
.53	3.32	.92	.32	.47	.35	.49	....	....	.52	.36
.21	....	.18	.43	.47	.44	.12	....	....	....	.18
....	....	....	.11	....	.09	....	....	....	....	.18
.21	....	.18	.32	.47	.35	.12	....	....	....	....
2.13	.33	2.30	2.25	.47	1.93	1.97	....	....	.52	2.18
....	....	....	.32	....	.26	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.21	....	.18	.25	....	....	....	....
....	....	....	....	....	....	....	....	....	.52	....
.11	....	.09	....	....	....	....	....	....	....	....
1.05	2.66	1.29	1.07	.47	.96	.86	....	....	....	1.09
.96	.66	.92	.54	....	.44	.86	....	....	....	1.09
.96	....	.83	.21	.47	.26	.25	....	....	....	.36
.96	....	.83	.11	.47	.18	.25	....	....	....	.36
....	....	....	.11	....	.09	....	....	....	....	....
54.62	71.05	56.90	88.58	38.06	79.27	47.34	....	....	24.03	35.03

TABLE No. XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	....	2	....	2	2	2
4	Malarial fevers (all)	....	7	....	7	7	8
4a	Malarial fever, estivo-autumnal	....	2	....	2	2	2
4c	Malarial fever, quartan	....	1	....	1	1	1
4d	Malarial fever, tertian	....	2	....	2	2	3
4e	Malarial fever, undetermined	....	2	....	2	2	2
6	Measles (all)	....	20	1	21	21	21
6a	Measles, uncomplicated	....	8	1	9	9	9
6c	Measles with broncho-pneumonia	....	5	....	5	5	5
6d	Measles with lobar pneumonia	....	1	....	1	1	1
6f	Measles with other complications	....	6	....	6	6	6
7	Scarlet fever	....	3	....	3	3	3
9	Diphtheria and results	....	3	....	3	3	3
10	Influenza (all)	....	4	....	4	4	6
14	Dysentery (all)	....	22	1	23	23	24
14c	Dysentery, entamœbic	....	19	1	20	20	20
14e	Dysentery, unclassified	....	3	....	3	3	4
17	Leprosy	....	....	....	....	....	2
18	Erysipelas	....	5	....	5	5	5
18b	Meningitis, cerebrospinal (epidemic)	....	14	....	14	14	14
19b	Diphtheria bacillus carrier	....	1	....	1	1	1
19i	Typhoid bacillus carrier	....	1	....	1	1	1
19j	Typhoid vaccination	....	2	....	2	2	2
19k	Vaccinia	....	1	....	1	1	1
19l	Mumps	....	1	....	1	1	1
20b	Pyæmia, surgical	....	1	....	1	1	1
22	Anthrax	....	1	....	1	1	1
25a	Mycoses (others)	....	2	....	2	2	2
26	Pellagra	....	....	1	1	1	1
27	Beriberi	....	....	....	....	....	1
47	Rheumatic fever	....	79	1	80	80	80
11, 19, 18a, 18c, 20a	Infectious disease (others)	....	5	....	5	5	8
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	11	3,464	154	3,618	3,629	3,640
29	Miliary tuberculosis, acute	....	7	....	7	7	7
30-35	Tuberculosis (others)	....	165	7	172	172	176
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	3	382	43	425	428	430
37a	Syphilis, hereditary	....	3	....	3	3	3
37b	Syphilis, primary	1	42	3	45	46	46
37c	Syphilis, secondary	1	157	8	165	166	168
37d	Syphilis, tertiary	1	180	32	212	213	213
38a	Chancroid	....	13	1	14	14	14
38b	Gonococcus infection	....	328	15	343	343	343
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	....	30	....	30	30	30
39-45	Cancer and other malignant tumors	....	8	....	8	8	8
46	Benign tumors	1	33	....	33	34	34
48	Arthritis	1	324	24	348	349	349
50	Diabetes mellitus	1	27	1	28	29	2[illegible]

American and native troops), for the year 1917, at home and abroad.

ABSOLUTE NUMBERS.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
3	2	2	7	......	......	......	......	7	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	......	......	......	......	......	......
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	......	......	......	......	......	......
10	6	3	19	......	1	......	1	20	......	......	......	......	......	......
3	2	2	7	......	1	......	1	8	......	......	......	......	......	......
2	2	1	5	......	......	......	......	5	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
4	2	......	6	......	......	......	......	6	......	......	......	......	......	......
3	......	......	3	......	......	......	......	3	......	......	......	......	......	......
......	3	......	3	......	......	......	......	3	......	......	......	......	......	......
3	......	......	3	......	......	......	......	3	......	1	......	1	......	1
14	2	2	18	......	......	......	......	18	......	......	......	......	......	......
11	2	2	15	......	......	......	......	15	......	......	......	......	......	......
3	......	......	3	......	......	......	......	3	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1	3	1	5	......	......	......	......	5	......	......	......	......	......	......
14	......	......	14	......	......	......	......	14	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	......	......	......	......	......	......
......	......	......	......	......	......	1	1	1	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
42	34	2	78	1	......	......	1	79	......	1	......	1	......	1
2	2	......	4	......	......	......	......	4	......	......	......	......	......	......
1,132	1,830	395	3,357	58	32	59	149	3,506	13	6	1	20	......	20
1	5	1	7	......	......	......	......	7	......	......	......	......	......	......
64	62	30	156	3	......	4	7	163	......	......	......	......	......	......
146	129	83	358	20	6	15	41	399	1	......	......	1	......	1
2	1	......	3	......	......	......	......	3	......	......	......	......	......	......
10	26	4	40	......	3	......	3	43	......	......	......	......	......	......
50	48	52	150	6	2	......	8	158	1	......	......	1	......	1
84	54	27	165	14	1	15	30	195	......	......	......	......	......	......
4	6	2	12	......	......	1	1	13	......	......	......	......	......	......
111	171	32	314	9	......	5	14	328	......	......	......	......	......	......
11	14	5	30	......	......	......	......	30	......	......	......	......	......	......
3	4	......	7	......	......	......	......	7	......	......	......	......	......	......
12	15	5	32	......	......	......	......	32	......	......	......	......	......	......
111	143	59	313	6	2	16	24	337	1	1	......	2	......	2
14	7	4	25	1	......	......	1	26	......	......	......	......	......	......

TABLE NO. XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL.)						
1	Typhoid fever						
4	Malarial fevers (all)						
4a	Malarial fever, estivo-autumnal						
4c	Malarial fever, quartan						
4d	Malarial fever, tertian						
4e	Malarial fever, undetermined						
6	Measles (all)				1		1
6a	Measles, uncomplicated				1		1
6c	Measles with broncho-pneumonia						
6d	Measles with lobar pneumonia						
6f	Measles with other complications						
7	Scarlet fever						
9	Diphtheria and results						
10	Influenza (all)						
14	Dysentery (all)					1	1
14c	Dysentery, entamœbic					1	1
14e	Dysentery, unclassified						
17	Leprosy						
18	Erysipelas						
18b	Meningitis, cerebrospinal (epidemic)						
19b	Diphtheria bacillus carrier						
19i	Typhoid bacillus carrier						
19j	Typhoid vaccination						
19k	Vaccinia						
19l	Mumps						
20b	Pyæmia, surgical						
22	Anthrax						
25a	Mycoses (others)						
26	Pellagra						
27	Beriberi						
47	Rheumatic fever						
11, 19, 18a, 18c, 20a	Infectious disease (others)				1		1
	II. TUBERCULOSIS (ALL)						
28	Tuberculosis of lungs		1	1	46	1	47
29	Miliary tuberculosis, acute						
30–35	Tuberculosis (others)				7		7
	III. VENEREAL DISEASES (ALL)						
37	Syphilis (all)	1	2	3	6		6
37a	Syphilis, hereditary						
37b	Syphilis, primary				1		1
37c	Syphilis, secondary				3		3
37d	Syphilis, tertiary	1	2	3	2		2
38a	Chancroid				1		1
38b	Gonococcus infection				3		3
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets						
39–45	Cancer and other malignant tumors				1		1
46	Benign tumors						
48	Arthritis				1		1
50	Diabetes mellitus						

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
										1
										1
							2		2	
4		4					1		1	
4		4								
							1		1	
										2
			1		1					
								1	1	
										3
11	1	12	29	2	31	1		3	3	8
			1		1	1	1		1	3
7		7	6		6	3	2		2	
						1				
3		3					2		2	
4		4	6		6	2				
3	1	4	4		4	4				
			1		1					
2		2	6		6					
1		1				1				

TABLE XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Number of international classifications.	Causes of admission to sick report.	United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	793,579
		Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	IV. GENERAL DISEASES (OTHERS)—continued.						
51a	Diseases of the thyroid gland (goiter simple excepted)	1	213		213	214	214
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted)		8		8	8	8
54	Anemia		14		14	14	14
56	Inebriety, drug addiction		59	10	69	69	69
56a	Alcoholism		122	1	123	123	123
57–59	Poisoning, chronic		3		3	3	3
55, 88	General diseases (others)		150	4	154	154	154
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple		5		5	5	5
62	Locomotor ataxia		17		17	17	17
63	Diseases of the spinal cord (others)		47	1	48	48	49
66	Paralysis, cause not specified	1	45	1	46	47	47
69	Epilepsy	1	631	23	654	655	655
72	Chorea		21		21	21	21
73	Hysteria and results (psychoses excepted)		116	6	122	122	122
73b	Neuritis	1	39	1	40	41	43
74	Neurasthenia	5	107	3	110	115	115
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	1	112	11	123	124	124
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane		10	1	11	11	11
68a	Constitutional psychopathic states	2	281	5	286	288	288
68b	Dementia precox	1	467	16	483	484	485
68c	Mental deficiency		1,024	16	1,040	1,040	1,041
68d	Psychasthenia	1	22		22	23	23
68e	Psychoneurosis		72	1	73	73	73
56b	Psychoses (alcholic)		18		18	18	18
68f	Psychoses (nonalcoholic)	3	172	10	182	185	185
68	Mental alienation (others)	1	28		28	29	29
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis		29		29	29	29
75b	Trachoma		193	4	197	197	199
75c	Refractive errors		96	1	97	97	97
75e	Iritis		6		6	6	6
75f	Keratitis		17		17	17	17
75g	Choroiditis		17		17	17	17
75h	Retinitis		19	2	21	21	21
75i	The eyes and annexa (other diseases of)	2	301	19	320	322	323
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	1	14		14	15	15
76b	Otitis media		531	5	536	536	536
76c	Ears, other diseases of	1	51	4	55	56	56
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids		1		1	1	1
86b	Deviation of nasal septum or spurs		11		11	11	11
86c	Sinusitis	1	25		25	26	26
86d	Nasal fossæ, other diseases of		21		21	21	21

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
50	128	29	207	.....	.....	.....	.....	207	.....	2	.....	2	.....	2
4	4	.....	8	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....
4	4	2	10	.....	.....	.....	.....	10	.....	3	.....	3	.....	3
19	15	25	59	5	5	.....	10	69	.....	.....	.....	.....	.....	.....
40	73	6	119	.....	.....	.....	.....	119	.....	.....	.....	.....	.....	.....
2	1	.....	3	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....
58	66	23	147	1	2	1	4	151	.....	.....	.....	.....	.....	.....
1	4	.....	5	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....
7	7	2	16	.....	.....	.....	.....	16	.....	.....	.....	.....	.....	.....
12	22	12	46	1	.....	.....	1	47	.....	.....	.....	.....	.....	.....
15	24	5	44	.....	.....	1	1	45	.....	.....	.....	.....	.....	.....
296	218	91	605	9	2	12	23	628	3	2	.....	5	.....	5
11	9	1	21	.....	.....	.....	.....	21	.....	.....	.....	.....	.....	.....
48	48	13	109	.....	1	4	5	114	.....	.....	.....	.....	.....	.....
14	21	4	39	.....	.....	1	1	40	.....	.....	.....	.....	.....	.....
38	34	26	98	1	1	.....	2	100	.....	.....	.....	.....	.....	.....
47	39	25	111	4	2	4	10	121	.....	.....	.....	.....	.....	.....
7	1	1	9	1	.....	.....	1	10	.....	.....	.....	.....	.....	.....
104	143	19	266	3	1	.....	4	270	1	.....	.....	1	.....	1
269	103	57	429	9	1	3	13	442	2	.....	.....	2	.....	2
289	557	152	998	9	.....	5	14	1,012	4	3	.....	7	.....	7
4	11	7	22	.....	.....	.....	.....	22	.....	.....	.....	.....	.....	.....
27	21	23	71	.....	.....	1	1	72	.....	.....	.....	.....	.....	.....
9	7	1	17	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....
78	51	37	166	7	.....	2	9	175	.....	.....	.....	.....	.....	.....
20	6	2	28	.....	.....	.....	.....	28	.....	.....	.....	.....	.....	.....
12	8	8	28	.....	.....	.....	.....	28	.....	.....	.....	.....	.....	.....
46	111	36	193	2	.....	2	4	197	.....	.....	.....	.....	.....	.....
19	34	38	91	1	.....	.....	1	92	.....	.....	.....	.....	.....	.....
1	4	1	6	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....
7	9	1	17	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....
6	10	1	17	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....
5	9	1	15	1	.....	1	2	17	.....	.....	.....	.....	.....	.....
48	186	56	290	7	10	2	19	309	.....	.....	.....	.....	.....	.....
3	11	.....	14	.....	.....	.....	.....	14	.....	.....	.....	.....	.....	.....
110	317	96	523	2	2	1	5	528	1	2	.....	3	.....	3
6	32	10	48	2	1	1	4	52	.....	1	.....	1	.....	1
.....	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
2	5	4	11	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....
8	8	9	25	.....	.....	.....	.....	25	.....	.....	.....	.....	.....	.....
6	11	3	20	.....	.....	.....	.....	20	.....	.....	.....	.....	.....	.....

TABLE No. XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	IV. GENERAL DISEASES (OTHERS)—continued.						
51a	Diseases of the thyroid gland (goiter simple excepted)				2		2
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted)						
54	Anemia						
56	Inebriety, drug addiction						
56a	Alcoholism				2		2
57-59	Poisoning, chronic						
55, 88	General diseases (others)						
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple						
62	Locomotor ataxia						
63	Diseases of the spinal cord (others)				1		1
66	Paralysis, cause not specified						
69	Epilepsy				10		10
72	Chorea						
73	Hysteria and results (psychoses excepted)				1		1
73b	Neuritis						
74	Neurasthenia				1	1	2
60, 65, 70, 73, 74a	Diseases of the nervous system (others)						
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane						
68a	Constitutional psychopathic states				3		3
68b	Dementia precox				12		12
68c	Mental deficiency				9		9
68d	Psychasthenia						
68e	Psychoneurosis				1		1
56b	Psychoses (alcholic)						
68f	Psychoses (nonalcoholic)	1		1	3		3
68	Mental alienation (others)						
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis				1		1
75b	Trachoma						
75c	Refractive errors				1		1
75e	Iritis						
75f	Keratitis						
75g	Choroiditis						
75h	Retinitis						
75i	The eyes and annexa (other diseases of)				9		9
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis						
76b	Otitis media				2		2
76c	Ears, other diseases of				2		2
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids						
86b	Deviation of nasal septum or spurs						
86c	Sinusitis						
86d	Nasal fossæ, other diseases of				1		1

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5.509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	2	....	2	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1	....	1	....	1	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	2	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1	....	1	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	1
....	....	....	....	....	....	1	....	....	....	....
4	....	4	4	....	4	3	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
2	....	2	2	1	3	2	....	....	....	....
....	....	....	....	....	....	....	2	....	2	....
6	....	6	1	....	1	1	....	....	....	....
....	....	....	1	1	2	....	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
2	....	2	7	1	8	2	....	....	....	....
10	1	11	10	2	12	4	....	....	....	1
....	....	....	7	2	9	3	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
1	....	1	1	1	2	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	2
1	....	1	2	....	2	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	3	....	3	1	....	....	....	....
1	....	1	....	....	....	1	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
1	....	1	1	....	1	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....

TABLE XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	1	5		5	6	6
100	Pharynx, diseases of		2		2	2	2
100a	Tonsils, diseases of		15		15	15	15
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis		10		10	10	10
78	Endocarditis, acute		14	4	18	18	18
79	Valvular heart diseases	2	1,034	23	1,057	1,059	1,059
79a	Heart, other organic diseases of	3	359	28	387	390	392
80	Angina pectoris		6		6	6	6
81a	Aneurysm		2		2	2	2
81	Arteries, other diseases of	1	15	1	16	17	18
82	Embolism and thrombosis		5		5	5	5
83a	Hemorrhoids		38	1	39	39	39
83b	Varicocele		44	1	45	45	45
83	Veins, other diseases of	2	147	6	153	155	155
84	Lymphatic system, other diseases of		12	1	13	13	13
85a	Cardiac arrhythmias		9		9	9	9
85b	Cardiac murmur, not organic		6	1	7	7	7
85c	Cardiac disorders, functional		3		3	3	3
85d	Hemorrhage		1		1	1	1
85	Circulatory system, other diseases of		70	4	74	74	74
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis		56	1	57	57	57
91	Broncho-pneumonia		2	2	4	4	4
92	Pneumonia, lobar		24	3	27	27	27
93	Pleurisy	1	63	1	64	65	65
98	Abscess of lung		2		2	2	2
96, 97	Respiratory systems, other diseases of		204	16	220	220	220
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of		136	1	137	137	137
101	Esophagus, diseases of		1		1	1	1
102	Ulcer of the stomach		40		40	40	40
103	Stomach, diseases of (ulcer and cancer excepted)	1	53	3	56	57	57
106	Ankylostomiasis		1		1	1	2
107a	Intestinal parasites, others		2		2	2	2
108	Appendicitis	1	32	2	34	35	36
109	Hernia	4	506	11	517	521	521
109a	Intestinal obstruction		4		4	4	4
105, 110	Intestines, other diseases of	2	76	3	79	81	81
113	Cirrhosis of the liver		4		4	4	4
114	Cholelithiasis		1		1	1	1
115	Cholecystitis		6		6	6	6
117b	Peritonitis, chronic		1		1	1	1
117c	Peritoneal adhesions		29		29	29	29
118	Other diseases of the digestive system		15		15	15	15

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,443	13,150	558,688	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
3	2	......	5	......	......	......	......	5	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	......	......	......	......	......	......
6	5	4	15	......	......	......	......	15	......	......	......	......	......	......
7	1	2	10	......	......	......	......	10	......	......	......	......	......	......
5	8	1	14	......	3	1	4	18	......	......	......	......	......	......
321	557	129	1,007	19	1	3	23	1,030	......	3	......	3	......	3
121	191	35	347	9	12	7	28	375	1	5	......	6	......	6
4	2	......	6	......	......	......	......	6	......	......	......	......	......	......
......	2	......	2	......	......	......	......	2	......	......	......	......	......	......
5	10	......	15	......	1	......	1	16	......	......	......	......	......	......
3	1	1	5	......	......	......	......	5	......	......	......	......	......	......
1	21	15	37	......	1	......	1	38	......	......	......	......	......	......
8	22	14	44	1	......	......	1	45	......	......	......	......	......	......
42	62	39	143	2	3	1	6	149	1	......	......	1	......	1
3	8	1	12	......	1	......	1	13	......	......	......	......	......	......
1	5	1	8	......	......	......	......	8	......	......	......	......	......	......
3	2	......	5	1	......	......	1	6	......	......	......	......	......	......
......	2	......	2	......	......	......	......	2	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
21	34	8	63	3	1	......	4	67	......	6	......	6	......	6
18	29	6	53	......	1	......	1	54	......	1	......	1	......	1
1	1	......	2	2	......	......	2	4	......	......	......	......	......	......
13	8	3	24	......	1	1	2	26	......	......	......	......	......	......
25	26	11	62	1	......	......	1	63	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
66	79	49	194	2	5	7	14	208	1	1	......	2	......	2
25	74	34	133	......	......	1	1	134	......	1	......	1	......	1
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
15	13	10	38	......	......	......	......	38	......	......	......	......	......	......
27	16	5	48	......	......	2	2	50	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
9	17	4	30	2	......	......	2	32	......	......	......	......	......	......
118	253	128	499	3	4	4	11	510	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
26	25	19	70	2	1	......	3	73	......	......	......	......	......	......
3	1	......	4	......	......	......	......	4	......	......	......	......	......	......
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
4	2	......	6	......	......	......	......	6	......	......	......	......	......	......
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
9	16	3	28	......	......	......	......	28	......	......	......	......	......	......
4	8	3	15	......	......	......	......	15	......	......	......	......	......	......

TABLE No. XVI.—*Discharges for disability, total Army including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of						
100	Pharynx, diseases of						
100a	Tonsils, diseases of						
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis						
78	Endocarditis, acute						
79	Valvular heart diseases	1		1	15		15
79a	Heart, other organic diseases of				3		3
80	Angina pectoris						
81a	Aneurysm						
81	Arteries, other diseases of						
82	Embolism and thrombosis						
83a	Hemorrhoids				1		1
83b	Varicocele						
83	Veins, other diseases of				2		2
84	Lymphatic system, other diseases of						
85a	Cardiac arrhythmias				1		1
85b	Cardiac murmur, not organic				1		1
85c	Cardiac disorders, functional						
85d	Hemorrhage				1		1
85	Circulatory system, other diseases of				1		1
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis						
91	Broncho-pneumonia						
92	Pneumonia, lobar					1	1
93	Pleurisy				1		1
98	Abscess of lung						
96, 97	Respiratory systems, other diseases of	1		1	1	1	2
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of				1		1
101	Esophagus, diseases of						
102	Ulcer of the stomach				2		2
103	Stomach, diseases of (ulcer and cancer excepted)	1		1	3		3
106	Ankylostomiasis						
107a	Intestinal parasites, others						
108	Appendicitis						
109	Hernia				5		5
109a	Intestinal obstruction						
105, 110	Intestines, other diseases of				1		1
113	Cirrhosis of the liver						
114	Cholelithiasis						
115	Cholecystitis						
117b	Peritonitis, chronic						
117c	Peritoneal adhesions				1		1
118	Other diseases of the digestive system						

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
3	......	3	4	......	4	1	......	......	......	......
1	......	1	2	......	2	......	......	......	......	2
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	1
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
1	......	1	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	1	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	1	......	1	1	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	1	1	6	......	6	......	......	......	......	......
......	......	......	......	......	......	1	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	1	1	1	......	......	......	......
......	......	......	......	......	......	......	......	1	1	......
......	......	......	......	......	......	1	......	......	......	......
2	......	2	......	......	......	......	1	......	1	......
......	......	......	2	......	2	......	......	......	......	......
......	......	......	......	......	......	1	......	......	......	......
2	......	2	2	......	2	1	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......

TABLE XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
Number of international classifications.	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	....	10	....	10	10	10
120	Nephritis, chronic (Bright's disease),	4	93	2	95	99	99
122	Kidney and annexa, other diseases of	....	23	1	24	24	24
123	Calculi of urinary passages	....	15	....	15	15	15
124	Bladder, diseases of	....	172	8	180	180	180
125	Urethra, diseases of	1	12	....	12	13	13
126	Prostate, diseases of	....	3	....	3	3	3
127	Male genital organs, diseases of (nonvenereal)	....	23	6	29	29	29
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	....	1	....	1	1	1
143	Furuncle,	....	2	....	2	2	2
144	Acute abscess	1	9	....	9	10	10
144a	Cellulitis	....	1	....	1	1	1
145	Skin and annexa, other diseases of	....	136	3	139	139	139
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	....	39	2	41	41	41
146a	Bones, other diseases of (tuberculosis excepted)	1	52	4	56	57	57
147	Joint, diseases of (rheumatism and tuberculosis excepted)	1	136	8	144	145	145
149	Pes planus	....	1,420	25	1,445	1,445	1,445
149a	Organs of locomotion, other diseases of	....	516	11	527	527	527
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	....	14	....	14	14	14
189	Not specified or ill-defined diseases	2	78	1	79	81	81
	Total for diseases	68	15,900	578	16,478	16,546	16,586
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	5	1,099	47	1,146	1,151	1,154
04	Burns	....	1	....	1	1	1
09	Compression (brain)	....	1	....	1	1	1
10	Concussion (brain)	1	6	....	6	7	7
12	Contusion	....	2	....	2	2	2
14	Crushing	....	31	1	32	32	32
17-20	Dermatitis from traumatism	....	2	....	2	2	2
21	Dislocation of joint	....	31	1	32	32	32
62	Dislocation, articular, cartilage of knee	....	12	....	12	12	12
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	....	11	1	12	12	12
34	Foreign bodies	2	2	....	2	4	4
36	Fracture, simple	....	55	2	57	57	57
35	Fracture, compound	....	12	....	12	12	13

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,443	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
3	4	3	10	......	......	......	......	10	......	......	......	......	......	......
44	28	11	83	1	......	1	2	85	......	......	......	......	......	......
9	9	4	22	......	......	......	......	22	......	......	......	......	......	......
6	5	2	13	......	......	......	......	13	......	......	......	......	......	......
69	76	16	161	......	......	5	5	166	......	1	......	1	......	1
3	6	3	12	......	......	......	......	12	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
10	8	3	21	5	1	......	6	27	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
1	4	1	6	......	......	......	......	6	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
43	69	24	136	1	2	......	3	139	......	......	......	......	......	......
13	13	12	38	1	......	......	1	39	......	......	......	......	......	......
16	22	12	50	......	2	2	4	54	......	......	......	......	......	......
36	70	26	132	2	3	3	8	140	......	......	......	......	......	......
398	678	293	1,369	7	10	8	25	1,394	......	......	......	......	......	......
91	306	102	499	5	5	1	11	510	1	3	......	4	......	4
1	10	3	14	......	......	......	......	14	......	......	......	......	......	......
22	37	15	74	1	......	......	1	75	......	......	......	......	......	......
5,146	7,673	2,514	15,333	233	127	189	549	15,882	30	43	1	74	......	74
443	431	196	1,070	20	6	17	43	1,113	1	1	......	2	......	2
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
2	4	......	6	......	......	......	......	6	......	......	......	......	......	......
1	......	1	2	......	......	......	......	2	......	......	......	......	......	......
18	9	3	30	1	......	......	1	31	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
14	11	4	29	1	......	......	1	30	......	......	......	......	......	......
6	4	......	10	......	......	......	......	10	......	......	......	......	......	......
4	2	4	10	1	......	......	1	11	......	......	......	......	......	......
..	1	1	2	......	......	......	......	2	......	......	......	......	......	......
26	20	4	50	......	......	1	1	51	......	......	......	......	......	......
5	7	......	12	......	......	......	......	12	......	......	......	......	......	......

TABLE NO. XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute						
120	Nephritis, chronic (Bright's disease)				5		5
122	Kidney and annexa, other diseases of						
123	Calculi of urinary passages						
124	Bladder, diseases of				2	1	3
125	Urethra, diseases of						
126	Prostate, diseases of						
127	Male genital organs, diseases of (nonvenereal)				2		2
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene						
143	Furuncle						
144	Acute abscess				2		2
144a	Cellulitis						
145	Skin and annexa, other diseases of						
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis				1	1	2
146a	Bones, other diseases of (tuberculosis excepted)				1		1
147	Joint, diseases of (rheumatism and tuberculosis excepted)				3		3
149	Pes planus				22		22
149a	Organs of locomotion, other diseases of				6		6
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations						
189	Not specified or ill-defined diseases				3		3
	Total for diseases	5	3	8	215	7	222
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	1		1	8	1	9
04	Burns						
09	Compression (brain)						
10	Concussion (brain)						
12	Contusion						
14	Crushing						
17–20	Dermatitis from traumatism						
21	Dislocation of joint						
62	Dislocation, articular, cartilage of knee						
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	1		1			
34	Foreign bodies						
36	Fracture, simple						
35	Fracture, compound						

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Col. ored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
			2		2	3				
1		1		1	1					
			1		1	1				
2	2	4	6		6					
						1				
			1		1					
			1		1					
6		6	10		10	13				
4		4				3				
			1		1					
80	6	86	130	13	143	63	9	5	14	26
5		5	3	3	6	10	1		1	2
						1				
			1		1	1				
1		1				1				
2		2	1	1	2	2				
										1

TABLE XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
38–48	Fracture, faulty union		40		40	40	41
37	Fracture comminuted		5	1	6	6	6
51	Gunshot wound		33	1	34	34	34
96	Secondary result of injury		668	30	698	698	699
73	Sprain of joint		27		27	27	27
75	Strain		3		3	3	3
81	Synovitis, traumatic, cause undetermined		19	2	21	21	21
93	Wounds, multiple		1		1	1	1
94	Wounds, penetrating	1	2	1	3	4	4
92	Wounds, extensive		1		1	1	1
95	Wounds, perforating		35	1	36	36	36
86–91	Wounds, others	1	30	3	33	34	34
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others		68	3	71	71	71
80	Sunstroke		1		1	1	1
	Total for diseases	68	15,900	578	16,478	16,546	16,586
	Total for external causes	5	1,099	47	1,146	1,151	1,154
	Grand total	73	16,999	625	17,624	17,697	17,740
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	5	1,099	47	1,146	1,151	1,154
01–19	Total military agents	1	169	16	185	186	187
01	Bayonet		1		1	1	1
02	Club		8	1	9	9	9
07	Hand grenade		1		1	1	1
08	Knife		4	1	5	5	5
09	Pistol ball		34	5	39	39	40
10	Rifle ball		87	7	94	94	94
14	Cutting or piercing instruments		33	2	35	35	35
15	Secondary missile	1	1		1	2	2
16–19	Others, military agents						
30–39	Total by air machines	1	3		3	4	4
30	Aeroplane	1	2		2	3	3
31	Balloon		1		1	1	1
32–39	Others by air machines						

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
26	7	4	37					37						
4			4	1			1	5						
15	16	1	32	1			1	33						
220	284	156	660	9	3	16	28	688		1		1		1
10	11	4	25					25	1			1		1
1	1		2					2						
11	7	1	19	2			2	21						
1			1					1						
2			2					2						
		1	1					1						
21	14		35		1		1	36						
17	10	2	29	3			3	32						
38	20	9	67	1	2		3	70						
1			1					1						
5,146	7,673	2,514	15,333	233	127	189	549	15,882	30	43	1	74		74
443	431	196	1,070	20	6	17	43	1,113	1	1		2		2
5,589	8,104	2,710	16,403	253	133	206	592	16,995	31	44	1	76		76
443	431	196	1,070	20	6	17	43	1,113	1	1		2		2
88	58	18	164	6	1	7	14	178						
	1		1					1						
4	3		7					7						
1			1					1						
2	1	1	4			1	1	5						
20	9	5	34	2		2	4	38						
45	35	4	84	2	1	4	7	91						
16	8	8	32	2			2	34						
	1		1					1						
1	1	1	3					3						
1		1	2					2						
	1		1					1						

TABLE NO. XVI.—*Discharges for disability, total Army (including officers*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
38–48	Fracture, faulty union	....	....	....	....	....	....
37	Fracture comminuted	....	....	....	....	....	....
51	Gunshot wound	....	....	....	....	....	....
96	Secondary result of injury	....	....	....	5	1	6
73	Sprain of joint	....	....	....	1	....	1
75	Strain	....	....	....	1	....	1
81	Synovitis, traumatic, cause undetermined	....	....	....	....	....	....
93	Wounds, multiple	....	....	....	....	....	....
94	Wounds, penetrating	....	....	....	....	....	....
92	Wounds, extensive	....	....	....	....	....	....
95	Wounds, perforating	....	....	....	....	....	....
86–91	Wounds, others	....	....	....	....	....	....
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisma, others	....	....	....	1	....	1
80	Sunstroke	....	....	....	....	....	....
	Total for diseases	5	3	8	215	7	222
	Total for external causes	1	....	1	8	1	9
	Grand total	6	3	9	223	8	231
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1	....	1	8	1	9
01–19	Total military agents	1	....	1	1	....	1
01	Bayonet	....	....	....	....	....	....
02	Club	....	....	....	....	....	....
07	Hand grenade	....	....	....	....	....	....
08	Knife	....	....	....	....	....	....
09	Pistol ball	....	....	....	....	....	....
10	Rifle ball	1	....	1	1	....	1
14	Cutting or piercing instruments	....	....	....	....	....	....
15	Secondary missile	....	....	....	....	....	....
16–19	Others, military agents	....	....	....	....	....	....
30–39	Total by air machines	....	....	....	....	....	....
30	Aeroplane	....	....	....	....	....	....
31	Balloon	....	....	....	....	....	....
32–39	Others by air machines	....	....	....	....	....	....

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
1	....	1	....	....	....	2	1	....	1	....
1	....	1	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	1	1	2	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	1	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
80	6	86	130	13	143	63	9	5	14	26
5	....	5	3	3	6	10	1	....	1	2
85	6	91	133	16	149	73	10	5	15	28
5	....	5	3	3	6	10	1	....	1	2
1	....	1	1	2	3	1	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
1	....	1	....	1	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	1	1	....	....	....	....	1
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....

TABLE XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—contd.						
40–49	Total by vehicles and animals		148	3	151	151	152
40	Automobile		22		22	22	23
41	Motorcycle		20		20	20	20
42	Railroad accident		55	2	57	57	57
43	Street-car accident		10		10	10	10
44	Others by vehicles		17		17	17	17
45	Animals		24	1	25	25	25
50–59	Total by industrial agents	3	196	11	207	210	210
51	Crushing	1	46	4	50	51	51
52	Electricity		1		1	1	1
53	Fall	2	141	4	145	147	147
54	Falling timbers		1		1	1	1
55	Fire		2	1	3	3	3
57	Machinery		5	2	7	7	7
60–69	Total for extreme temperatures		3		3	3	3
60	Excessive cold		3		3	3	3
70–79	Total by natural causes		16		16	16	16
70	Landslides		2		2	2	2
71	Lightning		2		2	2	2
72	Stones		3		3	3	3
74	Falling earth		2		2	2	2
75	Jumping		6		6	6	6
76	Hot liquid		1		1	1	1
80–81	Total by chemicals and poisons		3		3	3	3
80	Chemicals		3		3	3	3
99	All others from external agents		561	17	578	578	579

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
82	50	13	145	3	......	......	3	148	......	......	......	......	......	......
12	6	2	20	......	......	......	......	20	......	......	......	......	......	......
12	8	......	20	......	......	......	......	20	......	......	......	......	......	......
26	24	4	54	2	......	......	2	56	......	......	......	......	......	......
6	4	......	10	......	......	......	......	10	......	......	......	......	......	......
10	5	2	17	......	......	......	......	17	......	......	......	......	......	......
16	3	5	24	1	......	......	1	25	......	......	......	......	......	......
84	76	29	189	5	1	5	11	200	......	......	......	......	......	......
21	14	8	43	3	......	1	4	47	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
59	60	18	137	2	......	2	4	141	......	......	......	......	......	......
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
1	......	1	2	......	......	1	1	3	......	......	......	......	......	......
3	1	1	5	......	1	1	2	7	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
7	7	1	15	......	......	......	......	15	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
......	2	......	2	......	......	......	......	2	......	......	......	......	......	......
5	1	......	6	......	......	......	......	6	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
179	235	134	548	6	4	5	15	563	1	1	......	2	......	2

TABLE No. XVI.—*Discharges for disability, total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
40–49	Total by vehicles and animals	......	......	......	1	......	1
40	Automobile	......	......	......	1	......	1
41	Motorcycle	......	......	......	......	......	......
42	Railroad accident	......	......	......	......	......	......
43	Street-car accident	......	......	......	......	......	......
44	Others by vehicles	......	......	......	......	......	......
45	Animals	......	......	......	......	......	......
50–59	Total by industrial agents	......	......	......	......	......	......
51	Crushing	......	......	......	......	......	......
52	Electricity	......	......	......	......	......	......
53	Fall	......	......	......	......	......	......
54	Falling timbers	......	......	......	......	......	......
55	Fire	......	......	......	......	......	......
57	Machinery	......	......	......	......	......	......
60–69	Total for extreme temperatures	......	......	......	......	......	......
60	Excessive cold	......	......	......	......	......	......
70–79	Total by natural causes	......	......	......	......	......	......
70	Landslides	......	......	......	......	......	......
71	Lightning	......	......	......	......	......	......
72	Stones	......	......	......	......	......	......
74	Falling earth	......	......	......	......	......	......
75	Jumping	......	......	......	......	......	......
76	Hot liquid	......	......	......	......	......	......
80–81	Total by chemicals and poisons	......	......	......	......	......	......
80	Chemicals	......	......	......	......	......	......
99	All others from external agents	......	......	......	6	1	7

American and native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	2	1	....	1	....
....	....	....	....	....	....	1	1	....	1	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
3	....	3	....	....	....	4	....	....	....	....
2	....	2	....	....	....	1	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1	....	1	....	....	....	3	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1	....	1	1	1	2	3	....	....	....	1

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	....	0.00	....	0.00	0.00	0.00
3	Relapsing fever (all)	....	....	....	....	....	....
4	Malarial fevers (all)	....	.01	....	.01	.01	.01
4a	Malarial fever, estivo-autumnal	....	....	....	.00	.00	.00
4c	Malarial fever, quartan	....	.00	....	.00	.00	.00
4d	Malarial fever, tertian	....	.00	....	.00	.00	.00
4e	Malarial fever, undetermined	....	.00	....	.00	.00	.00
6	Measles (all)	....	.03	0.06	.03	.03	.03
6a	Measles, uncomplicated	....	.01	.06	.01	.01	.01
6c	Measles with broncho-pneumonia	....	.01	....	.01	.01	.01
6d	Measles with lobar pneumonia	....	.00	....	.00	.00	.00
6f	Measles with other complications	....	.01	....	.01	.01	.01
7	Scarlet fever	....	.00	....	.00	.00	.00
9	Diphtheria and results	....	.00	....	.00	.00	.00
10	Influenza (all)	....	.00	....	.00	.00	.01
14	Dysentery (all)	....	.04	.06	.04	.03	.04
14c	Dysentery, entamœbic	....	.03	.06	.03	.03	.03
14e	Dysentery, unclassified	....	.00	....	.00	.00	.00
17	Leprosy	....	....	....	....	....	....
18	Erysipelas	....	.01	....	.01	.01	.01
18b	Meningitis, cerebrospinal (epidemic)	....	.02	....	.02	.02	.02
19b	Diphtheria bacillus carrier	....	.00	....	.10	.00	.00
19i	Typhoid bacillus carrier	....	.00	....	.10	.00	.00
19j	Typhoid vaccination	....	.00	....	.10	.00	.00
19k	Vaccinia	....	.00	....	.10	.00	.00
19l	Mumps	....	.00	....	.10	.00	.00
20b	Pyæmia, surgical	....	.00	....	.10	.00	.00
22	Anthrax	....	.00	....	.10	.00	.00
25a	Mycoses (others)	....	.00	....	.10	.00	.00
26	Pellagra	....	....	.06	.10	....	.00
27	Beriberi	....	....	....	....	....	.00
47	Rheumatic fever	....	.13	.06	.12	.12	.12
11, 19, 18a, 18c, 20a	Infectious disease (others)	....	.01	....	.01	.01	.01
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	.35	5.57	8.57	5.66	5.41	5.36
29	Miliary tuberculosis, acute	....	.01	....	.01	.01	.01
30–35	Tuberculosis (others)	....	.27	.38	.27	.26	.26
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	.10	.61	2.39	.66	.64	.63
37a	Syphilis, hereditary	....	.00	....	.00	.00	.00
37b	Syphilis, primary	.03	.07	.17	.07	.07	.07
37c	Syphilis, secondary	.03	.25	.45	.26	.25	.25
37d	Syphilis, tertiary	.03	.29	1.78	.33	.32	.31
38a	Chancroid	....	.02	.06	.02	.02	.02
38b	Gonococcus infection	....	.53	.83	.54	.51	.51
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	....	.05	....	.05	.04	.04
39–45	Cancer and other malignant tumors	....	.01	....	.01	.01	.01
46	Benign tumors	.03	.05	....	.05	.05	.05
48	Arthritis	.03	.52	1.34	.54	.52	.51
50	Diabetes mellitus	.03	.04	.06	.04	.04	.04

American and native troops), for the year 1917, at home and abroad.

RATIOS PER 1,000 OF MEAN STRENGTH.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159.483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
......	0.01	0.01	0.00	......	......	......	0.00	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
0.02	.01	.01	.01	......	......	......	......	0.01	......	......	......	......	......	......
.01	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.05	.03	.02	.03	......	0.69	......	.08	.04	......	......	......	......	......	......
.02	.01	.01	.01	......	0.69	......	.08	.01	......	......	......	......	......	......
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	......	.01	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	......	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	......	......	.01	......	......	......	......	.01	......	0.11	......	0.02	......	0.02
.07	.02	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.06	.02	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.02	......	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.01	.02	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.07	......	......	.03	......	......	......	......	.02	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	......	......	......	......	0.16	.08	.00	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.22	.18	.01	.14	0.19	......	......	.08	.14	......	.11	......	.02	......	.02
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
5.84	9.53	2.48	6.15	11.00	22.15	9.17	11.33	6.28	0.38	.63	1.02	.45	......	.44
.01	.03	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.33	.32	.19	.29	.57	......	.62	.53	.29	......	......	......	......	......	......
.75	.67	.52	.66	3.79	4.15	2.33	3.12	.71	.03	......	......	.02	......	.02
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.05	.14	.02	.07	......	2.08	......	.23	.08	......	......	......	......	......	......
.26	.25	.33	.27	1.14	1.38	......	.61	.28	.03	......	......	.02	......	.02
.43	.28	.17	.30	2.66	.69	2.33	2.28	.35	......	......	......	......	......	......
.02	.03	.01	.02	......	......	.16	.08	.02	......	......	......	......	......	......
.57	.89	.20	.58	1.71	......	.78	1.06	.59	......	......	......	......	......	......
.06	.07	.03	.05	......	......	......	......	.05	......	......	......	......	......	......
.02	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.06	.08	.03	.06	......	......	......	......	.06	......	......	......	......	......	......
.57	.74	.37	.57	1.14	1.38	2.49	1.83	.60	.03	.11	......	.04	......	.04
.07	.04	.02	.05	.19	......	......	.08	.05	......	......	......	......	......	......

TABLE NO. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	......	......	......	......	......	......
3	Relapsing fever (all)	......	......	......	......	......	......
4	Malarial fevers (all)	......	......	......	......	......	......
4a	Malarial fever, estivo-autumnal	......	......	......	......	......	......
4c	Malarial fever, quartan	......	......	......	......	......	......
4d	Malarial fever, tertian	......	......	......	......	......	......
4e	Malarial fever, undetermined	......	......	......	......	......	......
6	Measles (all)	......	......	......	0.26	......	0.24
6a	Measles, uncomplicated	......	......	......	.26	......	.24
6c	Measles with broncho-pneumonia	......	......	......	......	......	......
6d	Measles with lobar pneumonia	......	......	......	......	......	......
6f	Measles with other complications	......	......	......	......	......	......
7	Scarlet fever	......	......	......	......	......	......
9	Diphtheria and results	......	......	......	......	......	......
10	Influenza (all)	......	......	......	......	......	......
14	Dysentery (all)	......	......	......	......	3.53	.24
14c	Dysentery, entamœbic	......	......	......	......	3.53	.24
14e	Dysentery, unclassified	......	......	......	......	......	......
17	Leprosy	......	......	......	......	......	......
18	Erysipelas	......	......	......	......	......	......
18b	Meningitis, cerebrospinal (epidemic)	......	......	......	......	......	......
19b	Diphtheria bacillus carrier	......	......	......	......	......	......
19i	Typhoid bacillus carrier	......	......	......	......	......	......
19j	Typhoid vaccination	......	......	......	......	......	......
19k	Vaccinia	......	......	......	......	......	......
19l	Mumps	......	......	......	......	......	......
20b	Pyæmia, surgical	......	......	......	......	......	......
22	Anthrax	......	......	......	......	......	......
25a	Mycoses (others)	......	......	......	......	......	......
26	Pellagra	......	......	......	......	......	......
27	Beriberi	......	......	......	......	......	......
47	Rheumatic fever	......	......	......	......	......	......
11, 19, 18a, 18c, 20a	Infectious disease (others)	......	......	......	.26	......	.24
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	......	4.98	1.21	12.06	3.53	11.47
29	Miliary tuberculosis, acute	......	......	......	......	......	......
30–35	Tuberculosis (others)	......	......	......	1.83	......	1.71
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	1.60	9.95	3.64	1.57	......	1.46
37a	Syphilis, hereditary	......	......	......	......	......	......
37b	Syphilis, primary	......	......	......	.26	......	.24
37c	Syphilis, secondary	.79	......	.73	.32	......	.27
37d	Syphilis, tertiary	1.60	9.95	3.64	.52	......	.49
38a	Chancroid	......	......	......	.26	......	.24
38b	Gonococcus infection	......	......	......	.79	......	.73
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	......	......	......	......	......	......
39–45	Cancer and other malignant tumors	......	......	......	.26	......	.24
46	Benign tumors	......	......	......	......	......	......
48	Arthritis	......	......	......	.26	......	.24
50	Diabetes mellitus	......	......	......	......	......	......

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	0.18
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	1.04	....
0.43	....	0.37	....	....	....	....	....	....	.52	....
.43	....	.37	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	.52	....
....	....	....	....	....	....	....	....	....	....	.36
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	0.11	....	0.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	.52	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.54
1.17	.66	1.10	3.11	.95	2.71	0.12	....	....	1.56	1.45
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	.12	....	....	.52	.54
.75	....	.64	.64	....	.52	.37	....	....	1.04	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	1.04	....	....	....	....	....	....	....	....
.43	....	.37	.64	....	.52	.25	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.32	.66	.37	.43	....	.35	.49	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
.21	....	.18	.64	....	.52	....	....	....	....	....
.11	....	.09	....	....	....	.12	....	....	....	....

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Metrength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	IV. GENERAL DISEASES—continued.						
51a	Diseases of the thyroid gland (goiter simple excepted)	0.03	0.34		0.33	0.32	0.32
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted)		.01		.01	.01	.01
54	Anæmia		.02		.02	.02	.02
56	Inebriety, drug addiction		.09	0.56	.11	.10	.10
56a	Alcoholism		.20	.06	.19	.18	.18
57-59	Poisoning, chronic		.00		.00	.00	.00
55, 88	General diseases (others)		.24	.22	.24	.23	.23
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple		.01		.01	.01	.01
62	Locomotor ataxia		.03		.03	.03	.03
63	Diseases of the spinal cord (others)		.08	.06	.07	.07	.07
66	Paralysis, cause not specified	.03	.07	.06	.07	.07	.07
69	Epilepsy	.03	1.01	1.28	1.02	.98	.97
72	Corea		.03		.03	.03	.03
73	Hysteria and results (psychoses excepted)		.19	.33	.19	.18	.18
73b	Neuritis	.03	.06	.06	.06	.06	.06
74	Neurasthenia	.16	.17	.17	.17	.17	.17
60,65,70, 73, 74a	Diseases of the nervous system (others)	.03	.18	.61	.19	.18	.18
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane		.02	.06	.02	.02	.02
68a	Constitutional psychopathic states	.06	.45	.28	.45	.43	.42
68b	Dementia præcox	.03	.75	.89	.75	.72	.71
68c	Mental deficiency		1.65	.89	1.63	1.55	1.53
68d	Psychasthenia	.03	.04		.03	.03	.03
68e	Psychoneurosis		.12	.06	.11	.11	.11
56b	Psychoses (alcoholic)		.03		.03	.03	.03
68f	Psychoses (nonalcoholic)	.10	.28	.56	.28	.28	.27
68	Mental alienation (others)	.03	.05		.04	.04	.04
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis		.05		.05	.04	.04
75b	Trachoma		.31	.22	.31	.29	.29
75c	Refractive errors		.15	.06	.15	.14	.14
75e	Iritis		.01		.01	.01	.01
75f	Keratitis		.03		.03	.03	.03
75g	Choroiditis		.03		.03	.03	.03
75h	Retinitis		.03	.11	.03	.03	.03
75i	The eyes and annexa (other diseases of)	.06	.48	1.06	.50	.48	.48
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	.03	.02		.02	.02	.02
76b	Otitis media		.85	.28	.84	.80	.79
76c	Ears, other diseases of	.03	.08	.22	.08	.08	.08
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids		.00		.00	.00	.00
86b	Deviation of nasal septum or spurs		.02		.02	.02	.02
86c	Sinusitis	.03	.04		.04	.04	.04
86d	Nasal fossæ, other diseases of		.03		.03	.03	.03

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.26	0.67	0.18	0.38	......	......	......	......	0.37	......	0.21	......	0.04	......	0.04
.02	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	.02	.01	.02	......	......	......	......	.02	......	.32	......	.07	......	.07
.10	.08	.16	.11	0.95	03.46	......	0.76	.12	......	......	......	......	......	......
.21	.38	.04	.22	......	......	......	......	.21	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.30	.34	.14	.27	.19	1.38	0.16	.30	.27	......	......	......	......	......	......
.01	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.04	.04	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.06	.11	.08	.08	.19	......	......	.08	.08	......	......	......	......	......	......
.08	.12	.03	.08	......	......	.16	.08	.08	......	......	......	......	......	......
1.53	1.14	.57	1.11	1.71	1.38	1.87	1.75	1.12	0.09	.21	......	.11	......	.11
.06	.05	.01	.04	......	......	......	......	.04	......	......	......	......	......	......
.25	.25	.08	.20	......	.69	.62	.38	.20	......	......	......	......	......	......
.07	.11	.02	.07	......	......	.16	.08	.07	......	......	......	......	......	......
.20	.18	.16	.18	.19	.69	......	.15	.18	......	......	......	......	......	......
.24	.20	.16	.20	.76	1.38	.62	.76	.22	......	......	......	......	......	......
.04	.01	.01	.02	.19	......	......	.08	.02	......	......	......	......	......	......
.54	.74	.12	.49	.57	.69	......	.30	.48	.03	......	......	.02	......	.02
1.39	.54	.36	.79	1.71	.69	.47	.99	.79	.06	......	......	.04	......	.04
1.49	2.90	.95	1.83	1.71	......	.78	1.06	1.81	.12	.32	......	.16	......	.15
.02	.06	.04	.04	......	......	......	......	.04	......	......	......	......	......	......
.14	.11	.14	.13	......	......	.16	.08	.13	......	......	......	......	......	......
.05	.04	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.40	.27	.23	.30	1.33	......	.31	.68	.31	......	......	......	......	......	......
.10	.03	.01	.05	......	......	......	......	.05	......	......	......	......	......	......
.06	.04	.05	.05	......	......	......	......	.05	......	......	......	......	......	......
.24	.58	.23	.35	.38	......	.31	.30	.35	......	......	......	......	......	......
.10	.18	.24	.17	.19	......	......	.08	.16	......	......	......	......	......	......
.01	.02	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.04	.05	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.03	.05	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.03	.05	.01	.03	.19	......	.16	.15	.03	......	......	......	......	......	......
.25	.97	.35	.53	1.33	6.92	.31	1.44	.55	......	......	......	......	......	......
.02	.06	......	.03	......	......	......	......	.02	......	......	......	......	......	......
.57	1.65	.60	.96	.38	1.38	.16	.38	.95	.03	.21	......	.07	......	.07
.03	.17	.06	.09	.38	.69	.16	.30	.09	......	.11	......	.02	......	.02
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.03	.02	.02	......	......	......	......	.02	......	......	......	......	......	......
.04	.04	.06	.05	......	......	......	......	.04	......	......	......	......	......	......
.03	.06	.02	.04	......	......	......	......	.04	......	......	......	......	......	......

TABLE No. XVII.—*Discharges for disability, total Army (inclnding officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	IV. GENERAL DISEASES (OTHERS)—continued.						
51a	Diseases of the thyroid gland (goiter simple excepted)				0.52		0.49
51b, 52, 53b, 116	Diseases of the ductless glands (thyroid excepted)						
54	Anæmia						
56	Inebriety, drug addiction						
56a	Alcoholism				.52		.49
57–59	Poisoning, chronic						
55, 88	General diseases (others)						
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple						
62	Locomotor ataxia						
63	Diseases of the spinal cord (others)				.26		.24
66	Paralysis, cause not specified						
69	Epilepsy				2.62		2.44
72	Chorea						
73	Hysteria and results (psychoses excepted)				.26		.24
73b	Neuritis						
74	Neurasthenia				.26	3.53	.49
60, 65, 70, 73, 74a	Diseases of the nervous system (others)						
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane						
68a	Constitutional psychopathic states				.79		.73
68b	Dementia præcox				3.15		2.93
68c	Mental deficiency				2.36		2.20
68d	Psychasthenia						
68e	Psychoneurosis				.26		.24
56b	Psychoses (alcoholic)						
68f	Psychoses (nonalcoholic)	1.60		1.21	.79		.73
68	Mental alienation (others)						
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis				.26		.24
75b	Trachoma						
75c	Refractive errors				.26		.24
75e	Iritis						
75f	Keratitis						
75g	Choroiditis						
75h	Retinitis						
75i	The eyes and annexa (other diseases of)				2.36		2.20
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis						
76b	Otitis media				.52		.49
76c	Ears, other diseases of				.52		.49
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids						
86b	Deviation of nasal septum or spurs						
86c	Sinusitis						
86d	Nasal fossæ, other diseases of				.26		.24

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
......	......	......	0.21	......	0.17	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	.11	......	.09	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
0.11	......	0.09	......	0.47	.09	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	.11	......	.09	0.25	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
.11	......	.09	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	0.18
......	......	......	......	......	......	.12	......	......	......	......
.43	......	.37	.43	......	.35	.37	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
.21	......	.18	.21	.47	.26	.25	......	......	......	......
......	......	......	......	......	......	......	......	......	1.04	......
.64	......	.55	.11	......	.09	.12	......	......	......	......
......	......	......	.11	.47	.17	......	......	......	......	......
......	......	......	......	......	......	.12	......	......	......	......
.21	......	.18	.75	.47	.70	.25	......	......	......	......
1.07	0.66	1.01	1.07	.95	1.05	.49	......	......	......	.18
......	......	......	.75	.95	.79	.37	......	......	......	.18
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	.12	......	......	......	......
.11	......	.09	.11	.47	.17	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	.36
.11	......	.09	.21	......	.17	.12	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	.32	......	.26	.12	......	......	......	......
.11	......	.09	......	......	......	.12	......	......	......	.18
......	......	......	......	......	......	......	......	......	......	......
.11	......	.09	.11	......	.09	.12	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	0.03	0.01	....	0.01	0.01	0.01
100	Pharynx, diseases of	....	.00	....	.00	.00	.00
100a	Tonsils, diseases of	....	.02	....	.02	.02	.02
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	....	.02	....	.02	.02	.02
78	Endocarditis, acute	....	.02	0.22	.03	.03	.03
79	Valvular heart diseases	.06	1.66	1.28	1.65	1.58	1.56
79a	Heart, other organic diseases of	.10	.58	1.56	.60	.58	.58
80	Angina pectoris	....	.01	....	.01	.01	.01
81a	Aneurysm	....	.00	....	.00	.00	.00
81	Arteries, other diseases of	.03	.02	.06	.02	.02	.03
82	Embolism and thrombosis	....	.01	....	.01	.01	.01
83a	Hemorrhoids	....	.06	.06	.06	.06	.06
83b	Varicocele	....	.07	.06	.07	.07	.07
83	Veins, other diseases of	.06	.24	.33	.24	.23	.23
84	Lymphatic system, other diseases of	....	.02	.06	.02	.02	.02
85a	Cardiac arrhythmias	....	.01	....	.01	.01	.01
85b	Cardiac murmur, not organic	....	.01	.06	.01	.01	.01
85c	Cardiac disorders, functional	....	.00	....	.00	.00	.00
85d	Hemorrhage	....	.00	....	.00	.00	.00
85	Circulatory system, other diseases of	....	.11	.22	.12	.11	.11
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	....	.09	.06	.09	.08	.08
91	Broncho-pneumonia	....	.00	.11	.01	.00	.00
92	Pneumonia, lobar	....	.04	.17	.04	.04	.04
93	Pleurisy	.03	.10	.06	.10	.10	.10
98	Abscess of lung	....	.00	....	.00	.00	.00
96, 97	Respiratory systems, other diseases of	....	.33	.89	.34	.33	.32
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	....	.22	.06	.21	.20	.20
101	Esophagus, diseases of	....	.00	....	.00	.00	.00
102	Ulcer of the stomach	....	.06	....	.06	.06	.06
103	Stomach, diseases of (ulcer and cancer excepted)	.03	.09	.17	.09	.08	.08
106	Ankylostomiasis	....	.00	....	.00	.00	.00
107a	Intestinal parasites, others	....	.00	....	.00	.00	.00
108	Appendicitis	.03	.05	.11	.05	.05	.05
109	Hernia	.13	.81	.61	.81	.78	.77
109a	Intestinal obstruction	....	.00	....	.01	.00	.00
105, 110	Intestines, other diseases of	.06	.12	.17	.12	.12	.12
113	Cirrhosis of the liver	....	.00	....	.01	.00	.00
114	Cholelithiasis	....	.00	....	.00	.00	.00
115	Cholecystitis	....	.01	....	.01	.01	.01
117b	Peritonitis, chronic	....	.00	....	.00	.00	.00
117c	Peritoneal adhesions	....	.05	....	.05	.04	.04
118	Other diseases of the digestive system	....	.02	....	.02	.02	.02

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.02	0.01	......	0.01	......	......	......	......	0.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.03	.03	0.02	.03	......	......	......	......	.03	......	......	......	......	......	......
.04	.01	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
.03	.04	.01	.03	......	2.08	0.16	0.30	.03	......	......	......	......	......	......
1.65	2.90	.81	1.85	3.60	.69	.47	1.75	1.84	......	0.32	......	0.07	......	0.07
.62	.99	.22	.64	1.71	8.30	1.09	2.13	.67	0.03	.53	......	.13	......	.13
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.03	.05	......	.03	......	.69	......	.08	.03	......	......	......	......	......	......
.02	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.11	.09	.07	......	.69	......	.08	.07	......	......	......	......	......	......
.04	.11	.09	.08	.19	......	......	.08	.08	......	......	......	......	......	......
.22	.32	.24	.26	.38	2.08	.16	.46	.27	.03	......	......	.02	......	.02
.02	.04	.01	.02	......	.69	......	.08	.02	......	......	......	......	......	......
.01	.03	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	.01	......	.01	.19	......	......	.08	.01	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.11	.18	.05	.12	.57	.69	......	.30	.12	......	.63	......	.13	......	.13
.09	.15	.04	.10	......	.69	......	.08	.10	......	.11	......	.02	......	.02
.01	.01	......	.00	.38	......	......	.15	.01	......	......	......	......	......	......
.07	.04	.02	.04	......	.69	.16	.15	.05	......	......	......	......	......	......
.13	.14	.07	.11	.19	......	......	.08	.11	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.34	.41	.31	.36	.38	3.46	1.09	1.06	.37	.03	.11	......	.04	......	.04
.13	.39	.21	.24	......	......	.16	.08	.24	......	.11	......	.02	......	.02
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.08	.07	.06	.07	......	......	......	......	.07	......	......	......	......	......	......
.14	.08	.03	.09	......	......	.31	.15	.09	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.05	.09	.02	.05	.38	......	......	.15	.06	......	......	......	......	......	......
.61	1.32	.80	.91	.57	2.77	.62	.84	.91	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.13	.13	.12	.13	.38	.69	......	.23	.13	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.05	.08	.02	.05	......	......	......	......	.05	......	......	......	......	......	......
.02	.04	.02	.03	......	......	......	......	.03	......	......	......	......	......	......

TABLE No. XVII.—*Discharges for disability, total Army (including officers*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of						
100	Pharynx, diseases of						
100a	Tonsils, diseases of						
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis						
78	Endocarditis, acute						
79	Valvular heart diseases	1.60		1.21	3.93		3.66
79a	Heart, other organic diseases of				.79		.73
80	Angina pectoris						
81a	Aneurysm						
81	Arteries, other diseases of						
82	Embolism and thrombosis						
83a	Hemorrhoids				.26		.24
83b	Varicocele						
83	Veins, other diseases of				.52		.49
84	Lymphatic system, other diseases of						
85a	Cardiac arrhythmias				.26		.24
85b	Cardiac murmur, not organic				.26		.24
85c	Cardiac disorders, functional						
85d	Hemorrhage				.26		.24
85	Circulatory system, other diseases of				.26		.24
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis						
91	Broncho-pneumonia						
92	Pneumonia, lobar				3,53		.24
93	Pleurisy				.26		.24
96, 97	Respiratory systems, other diseases of	1.60		1.21	.26	3.53	.49
98	Abscess of lung						
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of				.26		.24
101	Esophagus, diseases of						
102	Ulcer of the stomach				.52		.49
103	Stomach, diseases of (ulcer and cancer excepted)	1.60		1.21	.79		.73
106	Ankylostomiasis						
107a	Intestinal parasites, others						
108	Appendicitis						
109	Hernia				1.31		1.22
109a	Intestinal obstruction						
105, 110	Intestines, other diseases of				.26		.24
113	Cirrhosis of the liver						
114	Cholelithiasis						
115	Cholecystitis						
117b	Peritonitis, chronic						
117c	Peritoneal adhesions				.26		.24
118	Other diseases of the digestive system						

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
0.32	....	0.27	0.43	....	0.35	0.12	....	....	....	....
.11	....	.09	.21	....	.17	....	....	....	....	0.36
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	.12	....	....	....	....
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....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	0.66	.09	.64	....	.52	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	0.47	.09	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.52
....	....	....	....	....	....	.12	....	....	....	....
.21	....	.18	....	....	....	....	....	....	....	.52
....	....	....	.21	....	.17	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.21	....	.18	.21	....	.17	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	....	0.02	....	0.02	0.02	0.02
120	Nephritis, chronic (Bright's disease)	0.13	.15	0.11	.15	.15	.15
122	Kidney and annexa, other diseases of	....	.04	.06	.04	.04	.04
123	Calculi, of urinary passages	....	.02	....	.02	.02	.02
124	Bladder, diseases of	....	.28	.44	.28	.27	.27
125	Urethra, diseases of	.03	.02	....	.02	.02	.02
126	Prostate, diseases of	....	.00	....	.00	.00	.00
127	Male genital organs, diseases of (nonvenereal)	....	.04	.33	.05	.04	.04
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	....	.00	....	.00	.00	.00
143	Furuncle	....	.00	....	.00	.00	.00
144	Acute abscess	.03	.01	....	.01	.02	.02
144a	Cellulitis	....	.00	....	.00	.00	.00
145	Skin and annexa, other diseases of	....	.22	.17	.22	.21	.20
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	....	.06	.11	.06	.06	.06
146a	Bones, other diseases of (tuberculosis excepted)	03	.09	.22	.09	.08	.08
147	Joint, diseases of (rheumatism and tuberculosis excepted)	.03	.22	.44	.22	.22	.21
149	Pes planus	....	2.28	1.39	2.26	2.15	2.13
149a	Organs of locomotion, other diseases of	....	.83	.61	.82	.79	.78
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	....	.02	....	.02	.02	.02
189	Not specified or ill-defined diseases	.06	.13	.06	.12	.12	.12
	Total for diseases	2.16	25.58	32.17	25.76	24.65	24.44
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	.16	1.77	2.62	1.79	1.71	1.70
04	Burns	....	.00	....	.00	.00	.00
09	Compression (brain)	....	.00	....	.00	.00	.00
10	Concussion (brain)	.03	.01	....	.01	.01	.01
12	Contusion	....	.00	....	.00	.00	.00
14	Crushing	....	.05	.06	.05	.05	.05
17–20	Dermatitis from traumatism	....	.00	....	.00	.00	.00
21	Dislocation of joint	....	.05	.06	.05	.05	.05
62	Dislocation, articular, cartilage of knee	....	.02	....	.02	.02	.02
08,11,13, 32,33,68, 69	Eye and annexa, traumatisms	....	.02	.06	.02	.02	.02
34	Foreign bodies	.06	.00	....	.00	.00	.00
36	Fracture, simple	....	.09	.11	.09	.08	.02
35	Fracture, compound	....	.02	....	.02	.02	.02
38–48	Fracture, faulty union	....	.06	....	.06	.06	.06
37	Fracture, comminuted	....	.01	.06	.01	.01	.00

American and native troops), for the year 1917, at home and abroad—Contd.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.02	0.02	0.02	0.02	......	......	......	......	0.02	......	......	......	......	......	......
.23	.15	.07	.15	0.19	......	0.16	0.15	.15	......	......	......	......	......	......
.05	.05	.02	.04	......	......	......	......	.04	......	......	......	......	......	......
.03	.03	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
.36	.40	.10	.30	......	......	.78	.38	.30	......	0.11	......	0.02	......	0.02
.02	.03	.02	.02	......	......	......	......	.02	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.05	.04	.02	.04	.95	0.69	......	.46	.05	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.02	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.22	.36	.15	.25	.19	1.38	......	.23	.25	......	......	......	......	......	......
.07	.07	.08	.07	.19	......	......	.08	.07	......	......	......	......	......	......
.08	.11	.08	.09	......	1.38	.31	.30	.10	......	......	......	......	......	......
.19	.36	.16	.24	.38	2.08	.47	.61	.25	......	......	......	......	......	......
2.05	3.53	1.84	2.51	1.33	6.92	1.24	1.90	2.50	......	......	......	......	......	......
.47	1.59	.64	.91	.95	3.46	.16	.84	.91	0.03	.32	......	.09	......	.09
.01	.05	.02	.03	......	......	......	......	.02	......	......	......	......	......	......
.11	.19	.09	.14	.19	......	......	.08	.13	......	......	......	......	......	......
26.55	39.95	15.76	28.11	44.20	87.89	29.38	41.75	28.43	.87	4.52	1.02	1.65	......	1.62
2.28	2.24	1.23	1.96	3.79	4.15	2.64	3.27	1.99	.03	.11	......	.04	......	.04
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.09	.05	.02	.05	.19	......	......	.08	.06	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.07	.06	.02	.05	.19	......	......	.08	.05	......	......	......	......	......	......
.03	.03	......	.02	......	......	......	......	.02	......	......	......	......	......	......
.02	.01	.02	.02	.19	......	......	.08	.02	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.13	.10	.02	.09	......	......	.16	.08	.09	......	......	......	......	......	......
.03	.04	......	.02	......	......	......	......	.02	......	......	......	......	......	......
.13	.04	.02	.07	......	......	......	......	.07	......	......	......	......	......	......
.02	......	......	.01	.19	......	......	.08	.01	......	......	......	......	......	......

TABLE NO. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored	Regulars.	Regulars.	White and colored.
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute						
120	Nephritis, chronic (Bright's disease)				1.31		1.22
122	Kidney and annexa, other diseases of						
123	Calculi, of urinary passages						
124	Bladder, diseases of				.52	3.53	.73
125	Urethra, diseases of						
126	Prostate, diseases of						
127	Male genital organs, diseases of (nonvenereal)				.52		.49
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene						
143	Furuncle						
144	Acute abscess				.52		.49
144a	Cellulitis						
145	Skin and annexa, other diseases of						
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis				.26	3.53	.49
146a	Bones, other diseases of (tuberculosis excepted)				.26		.24
147	Joint, diseases of (rheumatism and tuberculosis excepted)				.79		.73
149	Pes planus				5.77		5.37
149a	Organs of locomotion, other diseases of				1.57		1.46
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations						
189	Not specified or ill-defined diseases				.79		.73
	Total for diseases	8.01	14.93	9.70	56.39	27.73	54.20
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	1.60		1.21	2.10	3.53	2.20
04	Burns						
09	Compression (brain)						
10	Concussion (brain)						
12	Contusion						
14	Crushing						
17–20	Dermatitis from traumatism						
21	Dislocation of joint						
62	Dislocation, articular, cartilage of knee						
08,11,13 32,33,68 [illegible]	Eye and annexa traumatisms	1.60		1.21			
34	Foreign bodies						
36	Fracture, simple						
35	Fracture, compound						
38–48	Fracture, faulty union						
37	Fracture, comminuted						

American and natixe troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.021	....	0.17	0.37	....	....	....	....
0.11	....	0.09	....	0.47	.09	....	....	....	....	....
....	....	....	.11	....	.09	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.21	1.33	.37	.64	....	.52	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
.64	....	.55	1.07	....	.88	1.60	....	....	....	....
.43	....	.37	....	....	....	.37	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
8.53	3.98	7.91	13.96	6.18	12.53	7.77	....	....	7.31	4.72
.53	....	.46	.32	1.43	.53	1.23	....	....	.52	.36
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	.12	....	....	....	....
.11	....	.09	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.21	....	.18	.11	.47	.18	.25	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	.25	....	....	.52	....
.11	....	.09	....	....	....	....	....	....	....	....

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.	Causes of admission to sick report.	United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
		Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
51	Gunshot wound	....	0.05	0.06	0.05	0.05	0.03
96	Secondary result of injury	....	1.07	1.67	1.09	1.04	1.03
73	Sprain of joint	....	.04	....	.04	.04	.04
75	Strain	....	.00	....	.00	.00	.00
81	Synovitis, traumatic, cause undetermined	....	.03	.11	.03	.03	.00
93	Wounds, multiple	....	.00	....	.00	.00	.05
94	Wounds, penetrating	0.03	.00	.06	.00	.00	.00
92	Wounds, extensive	....	.00	....	.00	.00	.00
95	Wounds, perforating	....	.06	.06	.06	.05	.05
86–91	Wounds, other	.03	.05	.17	.05	.05	.05
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, other	....	.11	.17	.11	.10	.10
80	Sunstroke	....	.00	....	.00	.00	.00
	Total for diseases	2.16	25.58	32.17	25.76	24.65	24.44
	Total for external causes	.16	1.77	2.62	1.79	1.71	1.70
	Grand total	2.32	27.34	34.79	27.55	26.37	26.14
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	.16	1.77	2.62	1.79	1.71	1.70
01–19	Total military agents	.03	.27	.89	.29	.28	.28
01	Bayonet	....	.00	....	.00	.00	.00
02	Club	....	.01	.06	.01	.01	.01
07	Hand grenade	....	.00	....	.00	.00	.00
08	Knife	....	.01	.06	.01	.01	.01
09	Pistol ball	....	.05	.28	.06	.06	.06
10	Rifle ball	....	.14	.39	.15	.14	.14
14	Cutting or piercing instruments	....	.05	.11	.05	.05	.05
15	Secondary missile	.03	.00	....	.00	.00	.00
30–39	Total by air machines	.03	.00	....	.00	.01	.01
30	Aeroplane	.03	.00	....	.00	.00	.00
31	Balloon	....	.00	....	.00	.00	.00
40–49	Total by vehicles and animals	....	.24	.17	.24	.23	.22
40	Automobile	....	.04	....	.03	.03	.03
41	Motor-cycle	....	.03	....	.03	.03	.03

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.08	0.08	0.01	0.06	0.19	......	......	0.08	0.06	......	......	......	......	......	......
1.13	1.48	.98	1.21	1.71	2.08	2.49	2.13	1.23	......	0.11	......	0.02	......	0.02
.05	.06	.02	.05	......	......	......	......	.04	0.03	......	......	.02	......	.02
.01	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.06	.04	.01	.03	.38	......	......	.15	.04	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.11	.07	......	.06	......	.69	......	.08	.06	......	......	......	......	......	......
.09	.05	.01	.05	.57	......	......	.23	.06	......	......	......	......	......	......
.20	.10	.06	.12	.19	1.38	......	.23	.13	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
26.53	39.95	15.76	28.11	44.20	87.89	29.38	41.75	28.43	.87	4.52	1.02	1.65	......	1.62
2.28	2.24	1.23	1.96	3.79	4.15	2.64	3.27	1.99	.03	.11	......	.04	......	.04
28.81	42.20	16.99	30.07	47.99	92.04	32.02	45.01	30.42	.90	4.63	1.02	1.69	......	1.66
2.28	2.24	1.23	1.96	3.79	4.15	2.64	3.27	1.99	.03	.11	......	.04	......	.04
.45	.30	.11	.30	1.14	.69	1.09	1.06	.32	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	.01	.01	......	......	.16	.08	.01	......	......	......	......	......	......
.10	.05	.03	.06	.38	......	.31	.30	.07	......	......	......	......	......	......
.23	.18	.02	.15	.38	.69	.62	.53	.16	......	......	......	......	......	......
.08	.04	.05	.06	.38	......	......	.15	.06	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.42	.26	.08	.27	.57	......	......	.23	.26	......	......	......	......	......	......
.06	.03	.01	.04	......	......	......	......	.04	......	......	......	......	......	......
.06	.04	......	.04	......	......	......	......	.04	......	......	......	......	......	......

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
51	Gunshot wound						
96	Secondary result of injury				1.31	3.53	1.46
73	Sprain of joint				.26		.24
75	Strain				.26		.24
81	Synovitis, traumatic, cause undetermined						
93	Wounds, multiple						
94	Wounds, penetrating						
92	Wounds, extensive						
95	Wounds, perforating						
86–91	Wounds, other						
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, other				.26		.24
80	Sunstroke						
	Total for diseases	8.01	14.93	9.70	56.39	24.73	54.20
	Total for external causes	1.60		1.21	2.10	3.53	2.20
	Grand total	9.62	14.93	10.91	58.49	28.27	56.40
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1.60		1.21	2.10	3.53	2.20
01–19	Total military agents	1.60		1.21	.26		.24
01	Bayonet						
02	Club						
07	Hand grenade						
08	Knife						
09	Pistol ball						
10	Rifle ball	1.60		1.21	.26		.24
14	Cutting or piercing instruments						
15	Secondary missile						
30–39	Total by air machines						
30	Aeroplane						
31	Balloon						
40–49	Total by vehicles and animals				.26		.24
40	Automobile				.26		.24
41	Motorcycle						

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Col. ored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
......	......	......	0.11	......	0.09	......	......	......	......	......
......	......	......	......	0.47	.09	0.25	......	......	......	0.18
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	.47	.09	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	.12	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
8.53	3.98	7.91	13.96	6.18	12.53	7.77	......	......	7.31	4.72
.53	......	.46	.32	1.43	.53	1.23	......	......	.52	.36
9.07	3.98	8.36	14.28	7.61	13.05	9.00	......	......	7.84	5.08
.53	......	.46	.32	1.43	.53	1.23	......	......	.52	.36
.11	......	.09	.11	.95	.26	.12	......	......	......	.18
......	......	......	......	......	......	......	......	......	......	......
.11	......	.09	......	.47	.09	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	.47	.09	......	......	......	......	.18
......	......	......	.11	......	.09	......	......	......	......	......
......	......	......	......	......	......	.12	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	.25	......	......	.52	......
......	......	......	......	......	......	.12	......	......	.52	......
......	......	......	......	......	......	......	......	......	......	......

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—contd.						
42	Railroad accident	....	0.09	0.11	0.09	0.08	0.08
43	Street-car accident	....	.02	....	.02	.01	.01
44	Others by vehicles	....	.03	....	.03	.03	.02
45	Animals	....	.04	.06	.04	.04	.04
50–59	Total by industrial agents	0.10	.32	.61	.32	.31	.31
50	Conflagrations	....	....	....	....	....	....
51	Crushing	.03	.07	.22	.08	.08	.08
52	Electricity	....	.00	....	.00	.00	.00
53	Fall	.06	.23	.22	.23	.22	.22
54	Falling timbers	....	.00	....	.00	.00	.00
55	Fire	....	.00	.06	.00	.00	.00
57	Machinery	....	.01	.11	.01	.01	.01
60–69	Total for extreme temperatures	....	.00	....	.00	.00	.00
60	Excessive cold	....	.00	....	.00	.00	.00
70–79	Total by natural causes	....	.03	....	.03	.02	.02
70	Landslides	....	.00	....	.00	.00	.00
71	Lightning	....	.00	....	.00	.00	.00
72	Stones	....	.00	....	.00	.00	.00
74	Falling earth	....	.00	....	.00	.00	.00
75	Jumping	....	.01	....	.01	.01	.01
76	Hot liquid	....	.00	....	.00	.00	....
80–81	Total by chemicals and poisons	....	.00	....	.00	.00	.00
80	Chemicals	....	.00	....	.00	.00	.00
99	All others from external agents	....	.90	.95	.90	.86	.85

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PEE 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.13	0.12	0.02	0.10	0.38	......	......	0.15	0.10	......	......	......	......	......	......
.03	.02	......	.02	......	......	......	......	.02	......	......	......	......	......	......
.05	.03	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.08	.02	.03	.04	.19	......	......	.08	.04	......	......	......	......	......	......
.43	.40	.18	.35	.95	0.69	0.78	.84	.36	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.11	.07	.05	.08	.57	......	.16	.30	.08	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.30	.33	.11	.25	.38	......	.31	.30	.25	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	.01	.00	......	......	.16	.08	.01	......	......	......	......	......	......
.02	.01	.01	.01	......	.69	.16	.15	.01	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.04	.04	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.03	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.92	1.22	.84	1.00	1.14	2.77	.78	1.14	1.01	0.03	0.11	......	0.04	......	0.04

TABLE No. XVII.—*Discharges for disability, total Army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength.	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
42	Railroad accident						
43	Street-car accident						
44	Others by vehicles						
45	Animals						
50–59	Total by industrial agents						
50	Conflagration						
51	Crushing						
52	Electricity						
53	Fall						
54	Falling timbers						
55	Fire						
57	Machinery						
60–69	Total for extreme temperatures						
60	Excessive cold						
70–79	Total by natural causes						
70	Landslides						
71	Lightning						
72	Stones						
74	Falling earth						
75	Jumping						
76	Hot liquid						
80–81	Total by chemicals and poisons						
80	Chemicals						
99	All others from external agents				1.57	3.53	1.71

American and native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	0.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
0.32	....	0.28	....	....	....	.49	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.21	....	.18	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	.37	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	0.11	....	0.09	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	.11	0.47	.18	.37	....	....	....	0.18

TABLE No. XVIII.—*Deaths, total Army (including officers, American*

ABSOLUTE NUMBERS.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	1	21	1	22	23	23
4	Malarial fevers (all)		8	2	10	10	10
4a	Malarial fever, estivo-autumnal		5		5	5	5
4b	Malarial fever, mixed		1		1	1	1
4c	Malarial fever, quartan		2	2	4	4	4
4d	Malarial fever, tertian						
5	Smallpox		2		2	2	2
6	Measles (all)		967	8	975	975	975
6a	Measles, uncomplicated		21	1	22	22	22
6c	Measles with broncho-pneumonia		641	4	645	645	645
6d	Measles with lobar pneumonia		264	3	267	267	267
6f	Measles with other complications		41		41	41	41
7	Scarlet fever		59		59	59	59
9	Diphtheria and results		13		13	13	13
10	Influenza (all)		13	1	14	14	14
14	Dysentery (all)		4		4	4	4
14a	Dysentery, bacillary		1		1	1	1
14e	Dysentery, unclassified		3		3	3	3
18	Erysipelas	1	4		4	5	5
18b	Meningitis, cerebrospinal (epidemic)	6	309	22	331	337	338
19c	German measles		17		17	17	17
19l	Mumps		8	1	9	9	9
20	Septichæmia, general	2	24		24	26	26
20b	Pyæmia, surgical		1		1	1	1
22	Anthrax		1		1	1	1
24	Tetanus						1
26	Pellagra		1		1	1	1
47	Rheumatic fever		5		5	5	5
11, 19, 18a, 18c, 20a	Infectious disease (others)		3		3	3	3
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	1	86	17	103	104	104
29	Miliary tuberculosis, acute	1	7	1	8	9	10
30–35	Tuberculosis (others)	2	22	2	24	26	27
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	1	19	5	24	25	25
37c	Syphilis, secondary		7		7	7	7
37d	Syphilis, tertiary	1	12	5	17	18	18
38a	Chancroid		1		1	1	1
38b	Gonococcus infection		4		4	4	4
	IV. GENERAL DISEASES (OTHERS).						
39–45	Cancer and other malignant tumors	1	15	1	16	17	17
46	Benign tumors	1	3	1	4	5	5
48	Arthritis		2		2	2	2
50	Diabetes mellitus		17	1	18	18	18
51a	Diseases of the thyroid gland (goiter, simple, excepted)		1		1	1	1
53a	Leukemia		3		3	3	3
54	Anemia		3		3	3	3
56	Inebriety, drug addiction		1		1	1	1
56a	Alcoholism	1	15		15	16	16
55, 88	General diseases (others)	1	3		3	4	4

and native troops), for the year 1917, at home and abroad.

ABSOLUTE NUMBERS.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
4	8	5	17	......	1	......	1	18	......	......	......	......	......	......
5	......	......	5	......	......	......	......	5	......	......	......	......	......	......
3	......	......	3	......	......	......	......	3	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	......	......	......	......	......	......
233	465	242	940	1	......	6	7	947	9	8	1	18	......	18
6	8	6	20	......	......	......	......	20	......	......	......	......	......	......
159	292	167	618	1	......	3	4	622	9	7	1	17	......	17
48	152	63	263	......	......	3	3	266	......	1	......	1	......	1
20	13	6	39	......	......	......	......	39	......	......	......	......	......	......
27	3	18	48	......	......	......	......	48	2	6	......	8	......	8
6	3	3	12	......	......	......	......	12	......	......	......	......	......	......
2	3	2	7	......	......	......	......	7	......	......	2	2	......	2
1	2	......	3	......	......	......	......	3	1	......	......	1	......	1
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	1	......	......	1	......	1
1	2	1	4	......	......	......	......	4	......	......	......	......	......	......
81	107	97	285	2	1	14	17	302	13	4	......	17	2	19
6	8	3	17	......	......	......	......	17	......	......	......	......	......	......
1	3	3	7	1	......	......	1	8	......	1	......	1	......	1
14	6	3	23	......	......	......	......	23	1	......	......	1	......	1
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
4	1	......	5	......	......	......	......	5	......	......	......	......	......	......
......	......	2	2	......	......	......	......	2	1	......	......	1	......	1
33	28	13	74	4	1	9	14	88	2	2	......	4	......	4
1	4	1	6	......	1	......	1	7	......	......	......	......	......	......
7	7	4	18	......	1	......	1	19	1	2	......	3	......	3
11	3	2	16	2	......	2	4	20	1	2	......	3	......	3
4	1	1	6	......	......	......	......	6	......	1	......	1	......	1
7	2	1	10	2	......	2	4	14	1	1	......	2	......	2
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	2	3	......	......	......	......	3	......	......	......	......	......	......
7	4	1	12	1	......	......	1	13	......	1	......	1	......	1
1	1	......	2	......	......	1	1	3	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	......	......	......	......	......	......
6	7	3	16	......	......	......	......	16	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
......	2	1	3	......	......	......	......	3	......	......	......	......	......	......
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
4	4	3	11	......	......	......	......	11	1	......	......	1	......	1
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......

TABLE No. XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid						
4	Malarial fevers (all)					1	1
4a	Malarial fever, estivo-autumnal						
4b	Malarial fever, mixed						
4c	Malarial fever, quartan						
4d	Malarial fever, tertian					1	1
5	Smallpox						
6	Measles (all)				6	1	7
6a	Measles, uncomplicated				1	1	2
6c	Measles with broncho-pneumonia				5		5
6d	Measles with lobar pneumonia						
6f	Measles with other complications						
7	Scarlet fever				1		1
9	Diphtheria and results				1		1
10	Influenza (all)				4	1	5
14	Dysentery (all)						
14a	Dysentery, bacillary						
14e	Dysentery, unclassified						
18	Erysipelas						
18b	Meningitis, cerebrospinal (epidemic)				5	2	7
19c	German measles						
19l	Mumps						
20	Septichæmia, general						
20b	Pyæmia, surgical						
22	Anthrax						
24	Tetanus						
26	Pellagra						
47	Rheumatic fever						
11, 19, 18a, 18c, 20a	Infectious disease (others)						
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs				3	1	4
29	Miliary tuberculosis, acute				1		1
30–35	Tuberculosis (others)				1		1
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)						
37c	Syphilis, secondary						
37d	Syphilis, tertiary						
38a	Chancroid						
38b	Gonococcus infection						
	IV. GENERAL DISEASES (OTHERS).						
39–45	Cancer and other malignant tumors				1		1
46	Benign tumors						
48	Arthritis						
50	Diabetes mellitus		1	1			
51a	Diseases of the thyroid gland (goiter, simple, excepted)						
53a	Leukemia						
54	Anemia						
56	Inebriety, drug addiction						
56a	Alcoholism				2		2
55, 88	General diseases (others)						

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regular and colored.	White	Regulars.	Regulars.		
			4		4					
1	1	2				2				
1		1				1				
						1				
	1	1								
			3		3					
			1		1					
			2		2					
1		1	1		1					
							1		1	
							1		1	
			1	1	2	1				1
										1
4		4		2	2	1				
										1
				1	1					1
	1	1								
	1	1								
1		1								
1		1								
			1		1					
						1				
1		1								

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	26	1	27	27	27
63	Diseases of the spinal cord (others)	....	4	....	4	4	4
64	Apoplexy	4	13	....	13	17	17
69	Epilepsy	....	6	....	6	6	6
72	Chorea	....	3	....	3	3	3
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	....	3	....	3	3	3
	VI. MENTAL ALIENATION.						
68b	Dementia precox	1	1	....	1	2	2
56b	Psychoses (alcoholic)	....	18	1	19	19	19
68f	Psychoses (nonalcoholic)	....	6	....	6	6	6
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75h	Retinitis	....	....	1	1	1	1
75i	The eyes and annexa (other diseases of)	....	2	1	3	3	3
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	....	6	....	6	6	6
76b	Otitis media	....	15	....	15	15	15
86	IX. NASAL FOSSÆ, DISEASES OF.						
86c	Sinusitis	....	4	....	4	4	4
	X. THROAT, DISEASES OF.						
100	Pharynx, diseases of	1	5	....	5	6	6
100a	Tonsils, diseases of	....	18	....	18	18	18
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	....	5	....	5	5	5
78	Endocarditis, acute	....	5	1	6	6	6
79	Valvular heart diseases	....	9	1	10	10	10
79a	Heart, other organic diseases of	2	35	4	39	41	41
80	Angina pectoris	1	....	1	1	2	2
81a	Aneurysm	....	4	....	4	4	4
81	Arteries, other diseases of	1	5	....	5	6	6
82	Embolism and thrombosis	....	4	....	4	4	4
83a	Hemorrhoids	....	1	....	1	1	1
83	Veins, other diseases of	....	1	....	1	1	1
84a	Status lymphaticus	....	1	1	2	2	2
84	Lymphatic system, other diseases of	....	3	....	3	3	3
85d	Hemorrhage	....	2	1	3	3	3
85	Circulatory system, other diseases of	....	1	....	1	1	1
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	....	5	....	5	5	5
91	Broncho-pneumonia	1	227	13	240	241	241
92	Pneumonia, lobar	16	707	91	798	814	815
92b	Pneumonia, unclassified	1	4	....	4	5	5
93	Pleurisy	1	12	1	13	14	14
95	Gangrene of lung	....	2	....	2	2	2
96, 97	Respiratory systems, other diseases of	....	4	1	5	5	5

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
5	10	7	22	......	......	1	1	23	1	......	......	1	......	1
......	2	1	3	......	......	......	......	3	......	......	......	......	......	......
5	5	3	13	......	......	......	......	13	......	......	......	......	......	......
2	3	1	6	......	......	......	......	6	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
2	1	......	3	......	......	......	......	3	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
4	4	9	17	......	......	1	1	18	......	......	......	......	......	......
3	2	1	6	......	......	......	......	6	......	......	......	......	......	......
......	......	......	......	1	......	......	1	1	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
3	2	1	6	......	......	......	......	6	......	......	......	......	......	......
4	8	2	14	......	......	......	......	14	......	......	......	......	......	......
1	2	1	4	......	......	......	......	4	......	......	......	......	......	......
3	1	1	5	......	......	......	......	5	......	......	......	......	......	......
12	5	1	18	......	......	......	......	18	......	......	......	......	......	......
3	2	......	5	......	......	......	......	5	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	1	......	......	1	......	1
6	3	......	9	1	......	......	1	10	......	......	......	......	......	......
12	14	1	27	1	......	1	2	29	3	3	......	6	......	6
......	......	......	......	1	......	......	1	1	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	1	......	......	1	......	1
2	2	1	5	......	......	......	......	5	......	......	......	......	......	......
2	......	1	3	......	......	......	......	3	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
1	......	......	1	......	......	1	1	2	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	1	......	......	1	......	1
1	......	1	2	......	......	......	......	2	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
1	2	1	4	......	......	......	......	4	......	......	......	......	......	......
54	107	32	193	2	......	7	9	202	13	12	1	26	1	27
181	333	149	663	19	4	61	84	747	13	11	......	24	2	26
2	1	......	3	......	......	......	......	3	1	......	......	1	......	1
6	3	1	10	......	......	1	1	11	2	......	......	2	......	2
......	2	......	2	......	......	......	......	2	......	......	......	......	......	......
3	1	......	4	1	......	......	1	5	......	......	......	......	......	......

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	....	....	2	....	2
63	Diseases of the spinal cord (others)	....	....	....	....	....	....
64	Apoplexy	....	....	....	....	....	....
69	Epilepsy	....	....	....	....	....	....
72	Chorea	....	....	....	....	....	....
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	....	....	....	....	....	....
	VI. MENTAL ALIENATION.						
68b	Dementia precox	....	....	....	....	....	....
56b	Psychoses (alcoholic)	....	....	....	1	....	1
68f	Psychoses (nonalcoholic)	....	....	....	....	....	....
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75h	Retinitis	....	....	....	....	....	....
75i	The eyes and annexa (other diseases of)	....	....	....	....	1	1
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	....	....	....	....	....	....
76b	Otitis media	....	....	....	....	....	....
86	IX. NASAL FOSSÆ, DISEASES OF.						
86c	Sinusitis	....	....	....	....	....	....
	X. THROAT, DISEASES OF.						
100	Pharynx, diseases of	....	....	....	....	....	....
100a	Tonsils, diseases of	....	....	....	....	....	....
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	....	....	....	....	....	....
78	Endocarditis, acute	....	....	....	....	1	1
79	Valvular heart diseases	....	....	....	....	....	....
79a	Heart, other organic diseases of	....	....	....	....	....	....
80	Angina pectoris	....	....	....	....	....	....
81a	Aneurysm	....	....	....	....	....	....
81	Arteries, other diseases of	....	....	....	....	....	....
82	Embolism and thrombosis	....	....	....	1	....	1
83a	Hemorrhoids	....	....	....	....	....	....
83	Veins, other diseases of	....	....	....	....	....	....
84a	Status lymphaticus	....	....	....	....	....	....
84	Lymphatic system, other diseases of	....	....	....	....	....	....
85d	Hemorrhage	....	....	....	....	....	....
85	Circulatory system, other diseases of	....	....	....	....	....	....
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	....	....	....	1	....	1
91	Broncho-pneumonia	1	1	2	6	....	6
92	Pneumonia, lobar	4	....	4	14	3	17
92b	Pneumonia, unclassified	....	....	....	....	....	....
93	Pleurisy	....	....	....	....	....	....
95	Gangrene of lung	....	....	....	....	....	....
96, 97	Respiratory systems, other diseases of	....	....	....	....	....	....

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
1		1								
			1		1					
1		1								
1		1								
1		1		2	2	1				
1		1						1	1	
	1	1								
1		1		2	2					
	1	1	1	1	2	1				1

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	1	....	....	....	1	1
102	Ulcer of the stomach	1	7	1	8	9	9
103	Stomach, diseases of (ulcer and cancer excepted)	....	4	1	5	5	5
108	Appendicitis	3	76	4	80	83	83
109	Hernia	....	6	1	7	7	7
109a	Intestinal obstruction	....	10	2	12	12	12
105, 110	Intestines, other diseases of	1	17	....	17	18	18
113	Cirrhosis of the liver	1	3	....	3	4	4
114	Cholelithiasis	....	2	....	2	2	2
115	Cholecystitis	1	2	....	2	3	3
115a	Liver, other diseases of	....	1	....	1	1	1
117	Peritonitis, acute diffuse	....	5	1	6	6	6
117a	Peritonitis, acute local	....	2	....	2	2	2
117b	Peritonitis, chronic	....	5	1	6	6	7
118a	Pancreatitis	1	1	....	1	2	2
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	1	17	1	18	19	19
120	Nephritis, chronic (Bright's disease)	2	29	2	31	33	33
122	Kidney and annexa, other diseases of	1	2	1	3	4	4
123	Calculi, of urinary passages	....	2	....	2	2	4
124	Bladder, diseases of	....	1	....	1	1	1
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	....	1	....	1	1	1
143	Furuncle	....	1	....	1	1	1
144	Acute abscess	3	14	1	15	18	19
144a	Cellulitis	....	2	....	2	2	2
145	Skin and annexa, other diseases of	....	2	2	4	4	4
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	....	1	....	1	1	1
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
189	Not specified or ill-defined diseases	....	15	....	15	15	15
	Total for diseases	64	3,057	200	3,257	3,321	3,330
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	43	742	37	779	822	829
04	Burns	....	6	2	8	8	8
05, 06	Burns, chemical and X-ray	....	1	....	1	1	1
09	Compression (brain)	....	1	....	1	1	1
10	Concussion (brain)	....	8	....	8	8	8
12	Contusion	....	1	....	1	1	1
14	Crushing	4	139	3	142	146	147
17–20	Dermatitis from traumatism	....	2	....	2	2	2
21	Dislocation of joint	....	4	....	4	4	4
22, 23	Drowning (except suicides)	2	96	4	100	102	105
34	Foreign bodies	5	1	....	1	6	6
36	Fracture, simple	2	72	4	76	78	78
35	Fracture, compound	....	28	1	29	29	29

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
3	1	2	6	1	......	......	1	7	......	......	......	......	......	......
2	2	......	4	......	1	......	1	5	......	......	......	......	......	......
31	29	11	71	2	1	......	3	74	......	1	......	1	......	1
4	1	......	5	......	......	......	......	5	......	......	......	......	......	......
5	4	......	9	1	......	......	1	10	......	1	......	1	......	1
8	6	2	16	......	......	......	......	16	1	......	......	1	......	1
2	1	......	3	......	......	......	......	3	......	......	......	......	......	......
2	......	......	2	......	......	......	......	2	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
2	2	......	4	......	......	......	......	4	......	......	......	......	1	1
1	1	......	2	......	......	......	......	2	......	......	......	......	......	......
4	1	......	5	......	1	......	1	6	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
8	4	2	14	......	......	1	1	15	......	......	......	......	......	......
14	8	3	25	1	......	......	1	26	......	3	......	3	......	3
1	......	1	2	......	......	......	......	2	......	......	......	......	......	......
......	1	1	2	......	......	......	......	2	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
6	4	1	11	......	......	1	1	12	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	......	......	......	......	......	......
......	2	......	2	......	......	1	1	3	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
5	6	2	13	......	......	......	......	13	......	1	......	1	......	1
891	1,279	652	2,822	42	12	108	162	2,984	69	58	4	131	6	137
316	244	40	600	15	11	1	27	627	60	6	......	66	2	68
2	3	1	6	......	1	......	1	7	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
3	4	......	7	......	......	......	......	7	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
47	58	8	113	......	3	......	3	116	11	1	......	12	......	12
1	......	1	2	......	......	......	......	2	......	......	......	......	......	......
1	2	......	3	......	......	......	......	3	......	......	......	......	......	......
40	41	......	81	......	3	......	3	84	2	......	......	2	......	2
......	......	1	1	......	......	......	......	1	......	......	......	......	......	......
32	18	7	57	1	......	1	2	59	6	......	......	6	1	7
12	12	1	25	......	1	......	1	26	2	......	......	2	......	2

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of						
102	Ulcer of the stomach						
103	Stomach, diseases of (ulcer and cancer excepted)						
108	Appendicitis				2		2
109	Hernia				1		1
109a	Intestinal obstruction						
105, 110	Intestines, other diseases of						
113	Cirrhosis of the liver						
114	Cholelithiasis						
115	Cholecystitis						
115a	Liver, other diseases of						
117	Peritonitis, acute diffuse						
117a	Peritonitis, acute local						
117b	Peritonitis, chronic						
118a	Pancreatitis						
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	1		1	2		2
120	Nephritis, chronic (Bright's disease)						
122	Kidney and annexa, other diseases of						
123	Calculi, of urinary passages						
124	Bladder, diseases of						
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene						
143	Furuncle						
144	Acute abscess						
144a	Cellulitis						
145	Skin and annexa, other diseases of						
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis						
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
189	Not specified or ill-defined diseases				1		1
	Total for diseases	6	2	8	56	11	67
Office classification.	**TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.**						
	Total	1		1	22	2	24
04	Burns					1	1
05, 06	Burns, chemical and X-ray						
09	Compression (brain)						
10	Concussion (brain)						
12	Contusion						
14	Crushing				6		6
17–20	Dermatitis from traumatism						
21	Dislocation of joint				1		1
22, 23	Drowning (except suicides)				5	1	6
34	Foreign bodies						
36	Fracture, simple				2		2
35	Fracture, compound				1		1

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
1		1								
1		1	1	1	2					
				1	1					
				1	1					
1		1								
										1
1		1		1	1					
	1	1								
2		2				1				1
				1	1					
21	5	26	13	14	27	8	2		2	7
16	2	18	18	4	22	19	1	2	3	4
						1				
1		1								
4		4	4		4					1
3		3				5	1	1	2	1
1	1	2	5		5	1				

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
38–48	Fracture, faulty union	....	3	....	3	3	3
37	Fracture, comminuted	....	6	....	6	6	6
50	Gases deleterious, absorption of	....	3	....	3	3	3
51	Gunshot wound	3	55	3	58	61	62
52–56	Hemorrhage and results	1	5	....	5	6	6
59	Homicides	2	21	5	26	28	28
66	Poisoning by food	....	4	....	4	4	4
67	Poisoning, other acute	....	30	....	30	30	30
96	Secondary result of injury	....	2	....	2	2	2
79	Suicide	14	122	7	129	143	144
81	Synovitis, traumatic, cause undetermined	....	1	....	1	1	1
93	Wounds, multiple	1	2	....	2	3	3
94	Wounds, penetrating	2	18	2	20	22	22
95	Wounds, perforating	4	46	3	49	53	53
86–91	Wounds, other	....	27	....	27	27	28
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, other	3	37	3	40	43	43
80	Sunstroke	....	1	....	1	1	1
	Total for diseases	64	3,057	200	3,257	3,321	3,330
	Total for external causes	43	742	37	779	822	829
	Grand total	107	3,799	237	4,036	4,143	4,159
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	43	742	37	779	822	829
01–19	Total military agents	23	238	19	257	280	282
01	Bayonet	....	1	....	1	1	1
02	Club	....	3	....	3	3	3
04	Gas, asphyxiative	....	7	....	7	7	7
07	Hand grenade	1	3	....	3	4	4
08	Knife	....	13	....	13	13	13
09	Pistol ball	14	90	10	100	114	114
10	Rifle ball	5	87	8	95	100	102
12	Shell	1	10	....	10	11	11
13	Shrapnel	....	1	....	1	1	1
14	Cutting or piercing instruments	1	21	1	22	23	23
15	Secondary missile	1	....	....	....	1	1
16–19	Others, military agents	....	2	....	2	2	2

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
3	......	......	3	......	......	......	......	3	......	......	......	......	......	......
3	1	......	4	......	......	......	......	4	1	......	......	1	......	1
2	1	......	3	......	......	......	......	3	......	......	......	......	......	......
11	22	1	34	2	1	......	3	37	17	2	......	19	......	19
2	......	1	3	......	......	......	......	3	1	......	......	1	......	1
17	2	......	19	4	......	......	4	23	2	......	......	2	......	2
2	......	......	2	......	......	......	......	2	......	1	......	1	......	1
15	3	1	19	......	......	......	......	19	......	......	......	......	......	......
......	2	......	2	......	......	......	......	2	......	......	......	......	......	......
63	27	15	105	3	1	......	4	109	5	......	......	5	......	5
......	1	......	1	......	......	......	......	1	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
9	......	1	10	......	......	......	......	10	6	......	......	6	1	7
27	15	......	42	2	1	......	3	45	3	......	......	3	......	3
7	15	......	22	......	......	......	......	22	1	2	......	3	......	3
16	15	2	33	3	......	......	3	36	3	......	......	3	......	3
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
891	1,279	652	2,822	42	12	108	162	2,984	69	58	4	131	6	137
316	244	40	600	15	11	1	27	627	60	6	......	66	2	68
1,207	1,523	692	3,422	57	23	109	189	3,611	129	64	4	197	8	205
316	244	40	600	15	11	1	27	627	60	6	......	66	2	68
111	67	11	189	12	3	......	15	204	30	2	......	32	1	33
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
1	1	......	2	......	......	......	......	2	1	......	......	1	......	1
4	2	1	7	......	......	......	......	7	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	1	1	......	2	......	2
6	2	4	12	......	......	......	......	12	1	......	......	1	......	1
51	24	1	76	6	1	......	7	83	9	......	......	9	1	10
38	31	1	70	5	2	......	7	77	7	1	......	8	......	8
1	1	......	2	......	......	......	......	2	8	......	......	8	......	8
......	......	......	......	......	......	......	......	......	1	......	......	1	......	1
8	6	4	18	1	......	......	1	19	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	2	......	......	2	......	2

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	TRAUMATISM PRODUCED BY EXTERNAL CAUSES—continued.						
38–48	Fracture, faulty union						
37	Fracture, comminuted						
50	Gases deleterious, absorption of						
51	Gunshot wound	1		1			
52–56	Hemorrhage and results				1		1
59	Homicides						
66	Poisoning by food				1		1
67	Poisoning, other acute				1		1
96	Secondary result of injury						
79	Suicide				4		4
81	Synovitis, traumatic, cause undetermined						
93	Wounds, multiple						
94	Wounds, penetrating						
95	Wounds, perforating						
86–91	Wounds, other						
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–90.	Traumatisms, other						
80	Sunstroke						
	Total for diseases	6	2	8	56	11	67
	Total for external causes	1		1	22	2	24
	Grand total	7	2	9	78	13	91
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1		1	22	2	24
01–19	Total military agents	1		1	4		4
01	Bayonet						
02	Club						
04	Gas, asphyxiative						
07	Hand grenade						
08	Knife						
09	Pistol ball				2		2
10	Rifle ball	1		1	2		2
12	Shell						
13	Shrapnel						
14	Cutting or piercing instruments						
15	Secondary missile						
16–19	Others, military agents						

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	1	....	....	....	1
....	....	....	....	....	....	.	....	....	....	....
....	1	1	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
7	....	7	3	....	3	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	3	3	6	5	....	1	1	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	2	....	....	....	....
....	....	....	1	1	2	1	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....
....	....	....	....	....	....	2	....	....	....	1
....	....	....	1	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
21	5	26	13	14	27	8	2	....	2	7
16	2	18	18	4	22	19	1	2	3	4
37	7	44	31	18	49	27	3	2	5	11
16	2	18	18	4	22	19	1	2	3	4
....	....	....	3	3	6	9	....	1	1	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	2	3	2	....	....	....	....
....	....	....	1	1	2	5	....	1	1	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	2	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
20-29	Total by sinking ships	....	1	....	1	1	1
22	Sinking ships by submarine	....	1	....	1	1	1
30-39	Total by air machines	5	21	....	21	26	26
30	Aeroplane	5	21	....	21	26	26
40-49	Total by vehicles and animals	4	201	5	206	210	210
40	Automobile	....	42	....	42	42	42
41	Motor cycle	2	18	....	18	20	20
42	Railroad accident	....	101	5	106	106	106
43	Street car accident	1	21	....	21	22	22
44	Others by vehicles	....	8	....	8	8	8
45	Animals	1	11	....	11	12	12
50-59	Total by industrial agents	4	67	3	70	74	76
50	Conflagrations	....	4	....	4	4	4
51	Crushing	....	7	1	8	8	9
52	Electricity	....	....	1	1	1	1
53	Fall	4	49	1	50	54	54
54	Falling timbers	....	4	....	4	4	5
55	Fire	....	1	....	1	1	1
57	Machinery	....	2	....	2	2	2
70-79	Total by natural causes	....	16	1	17	17	17
73	Strangulations	....	10	....	10	10	10
74	Falling earth	....	4	....	4	4	4
76	Hot liquid	....	2	1	3	3	3
80-81	Total by chemicals and poisons	....	26	....	26	26	26
80	Chemicals	....	15	....	15	15	15
81	Poison	....	11	....	11	11	11
99	All others from external agents	7	172	9	181	188	191

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
......	......	......	......	......	......	......	......	......	1	......	......	1	......	1
......	......	......	......	......	......	......	......	......	1	......	......	1	......	1
18	......	......	18	......	......	......	......	18	2	......	......	2	......	2
18	......	......	18	......	......	......	......	18	2	......	......	2	......	2
66	83	13	162	......	4	1	5	167	14	1	......	15	......	15
21	12	5	38	......	......	......	......	38	2	......	......	2	......	2
3	3	1	7	......	......	......	......	7	5	......	......	5	......	5
18	57	6	81	......	4	1	5	86	7	1	......	8	......	8
13	5	1	19	......	......	......	......	19	......	......	......	......	......	......
4	4	......	8	......	......	......	......	8	......	......	......	......	......	......
7	2	......	9	......	......	......	......	9	......	......	......	......	......	......
31	23	4	58	......	......	......	......	58	4	......	......	4	1	5
2	2	......	4	......	......	......	......	4	......	......	......	......	......	......
2	5	......	7	......	......	......	......	7	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
22	15	4	41	......	......	......	......	41	3	......	......	3	1	4
4	......	......	4	......	......	......	......	4	......	......	......	......	......	......
1	......	......	1	......	......	......	......	1	......	......	......	......	......	......
......	1	......	1	......	......	......	......	1	1	......	......	1	......	1
6	7	3	16	......	1	......	1	17	......	......	......	......	......	......
4	5	1	10	......	......	......	......	10	......	......	......	......	......	......
2	1	1	4	......	......	......	......	4	......	......	......	......	......	......
......	1	1	2	......	1	......	1	3	......	......	......	......	......	......
16	2	4	22	......	......	......	......	22	......	......	......	......	......	......
9	1	2	12	......	......	......	......	12	......	......	......	......	......	......
7	1	2	10	......	......	......	......	10	......	......	......	......	......	......
68	62	5	135	3	3	......	6	141	9	3	......	12	......	12

TABLE XVIII.—*Deaths, total Army (including officers, American and*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
20–29	Total by sinking ships	....	....	....	....	....	....
22	Sinking ships by submarine	....	....	....	....	....	....
0–39	Total by air machines	....	....	....	1	....	1
30	Aeroplane	....	....	....	1	....	1
40–49	Total by vehicles and animals	....	....	....	8	....	8
40	Automobile	....	....	....	1	....	1
41	Motor cycle	....	....	....	....	....	....
42	Railroad accident	....	....	....	7	....	7
43	Street car accident	....	....	....	....	....	....
44	Others by vehicles	....	....	....	....	....	....
45	Animals	....	....	....	....	....	....
50–59	Total by industrial agents	....	....	....	2	....	2
50	Conflagrations	....	....	....	....	....	....
51	Crushing	....	....	....	....	....	....
52	Electricity	....	....	....	....	....	....
53	Fall	....	....	....	2	....	2
54	Falling timbers	....	....	....	....	....	....
55	Fire	....	....	....	....	....	....
57	Machinery	....	....	....	....	....	....
70–79	Total by natural causes	....	....	....	....	....	....
73	Strangulations	....	....	....	....	....	....
74	Falling earth	....	....	....	....	....	....
76	Hot liquid	....	....	....	....	....	....
80–81	Total by chemicals and poisons	....	....	....	....	....	....
80	Chemicals	....	....	....	....	....	....
81	Poison	....	....	....	....	....	....
99	All others from external agents	....	....	....		2	9

native troops), for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
4	....	4	9	....	9	3	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
....	....	....	6	....	6	....	....	....	....	....
2	....	2	2	....	2	1	....	....	....	....
2	....	2	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	2	....	....	....	....
2	1	3	1	1	2	....	....	....	....	2
....	....	....	....	....	....	....	....	....	....	....
....	1	1	....	....	....	....	....	....	....	1
....	....	....	....	1	1	....	....	....	....	....
2	....	2	1	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
1	....	1	2	....	2	1	....	....	....	....
1	....	1	1	....	1	1	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....
9	1	10	3	....	3	6	1	1	2	1

TABLE No. XIX.—*Deaths, total Army (including officers, American*

RATIOS PER 1,000 OF MEAN STRENGTH.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	0.03	0.03	0.06	0.03	0.03	0.03
4	Malarial fevers (all)	....	.01	.11	.02	.01	.01
4a	Malarial fever, estivo-autumnal	....	.01	....	.01	.01	.01
4b	Malarial fever, mixed	....	....	....	....	....	....
4c	Malarial fever, quartan	....	.00	.11	.00	.01	.01
4d	Malarial fever, tertian	....	....	....	....	....	....
5	Smallpox	....	....	....	....	....	....
6	Measles (all)	....	1.56	.45	1.52	1.45	1.44
6a	Measles, uncomplicated	....	.03	.06	.03	.03	.03
6c	Measles with broncho-pneumonia	....	1.03	.22	1.01	.96	.95
6d	Measles with lobar pneumonia	....	.42	.17	.42	.40	.39
6f	Measles with other complications	....	.07	....	.06	.06	.06
7	Scarlet fever	....	.09	....	.09	.09	.09
9	Diphtheria and results	....	.02	....	.02	.02	.02
10	Influenza (all)	....	.02	.06	.02	.02	.02
14	Dysentery (all)	....	.01	....	.01	.01	.01
14a	Dysentery, bacillary	....	....	....	....	....	....
14e	Dysentery, unclassified	....	....	....	....	....	....
18	Erysipelas	.03	.01	....	.01	.01	.01
18b	Meningitis, cerebrospinal (epidemic)	.19	.50	1.22	.52	.50	.50
19c	German measles	....	.03	....	.03	.03	.02
191	Mumps	....	.01	.06	.01	.01	.01
20	Septichæmia, general	.06	.04	....	.04	.04	.04
20b	Pyæmia, surgical	....	.00	....	.00	.00	.00
22	Anthrax	....	.00	....	.00	.00	.00
24	Tetanus	....	....	....	....	....	.00
26	Pellagra	....	.00	....	.00	.00	.00
47	Rheumatic fever	....	.01	....	.01	.01	.01
11, 19, 18a, 18c, 20a	Infectious disease (others)	....	.00	....	.00	.00	.00
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	.03	.14	.95	.16	.15	.15
29	Miliary tuberculosis, acute	.03	.01	.06	.01	.01	.01
30–35	Tuberculosis (others)	.06	.04	.11	.04	.04	.04
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	.03	.03	.28	.04	.04	.04
37c	Syphilis, secondary	....	.01	....	.01	.01	.01
37d	Syphilis, tertiary	.03	.02	.28	.03	.03	.03
38a	Chancroid	....	.00	....	.00	.00	.00
38b	Gonococcus infection	....	.01	....	.01	.01	.01
	IV. GENERAL DISEASES (OTHERS).						
39–45	Cancer and other malignant tumors	.03	.02	.06	.02	.03	.02
46	Benign tumors	.03	.00	.06	.01	.01	.01
48	Arthritis	.00	....	.00	.00	.00	....
50	Diabetes mellitus	....	.03	.06	.03	.03	.03
51a	Diseases of the thyroid gland (goiter simple excepted)	....	.00	....	.00	.00	.00
53a	Leukemia	....	.00	....	.00	.00	.00
54	Anemia	....	.00	....	.00	.00	.00
56	Inebriety, drug addiction	....	.00	....	.00	.00	.00
56a	Alcoholism	.03	.02	....	.02	.02	.02
55, 88	General diseases (others)	.03	.00	....	.00	.01	.01

and native troops) for the year 1917, at home and abroad.

RATIOS PER 1,000 OF MEAN STRENGTH.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.02	0.04	0.03	0.03	......	0.69	......	0.08	0.03	......	......	......	......	......	......
.03	......	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	......	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	......	......	......	......	......	......	......
.01	.01	......	......	......	......	......	......	......	......	......	......	......	......	......
1.20	2.42	1.52	1.72	0.19	......	0.93	.53	1.70	0.26	0.84	1.02	0.40	......	0.39
.03	.04	.04	.04	......	......	......	......	.04	......	......	......	......	......	......
.82	1.52	1.05	1.13	.19	......	.47	.30	1.11	.26	.74	1.02	.38	......	.37
.25	.79	.40	.48	......	......	.47	.23	.48	......	.11	......	.02	......	.02
.10	.07	.04	.07	......	......	......	......	.07	......	......	......	......	......	......
.14	.02	.11	.09	......	......	......	......	.09	.06	.63	......	.18	......	.18
.03	.02	.02	.02	......	......	......	......	.02	......	......	......	......	......	......
.01	.02	.01	.01	......	......	......	......	.01	......	......	2.03	.04	......	.04
.01	.01	......	.01	......	......	......	......	.01	.03	......	......	.02	......	.02
......	.01	......	......	......	......	......	......	......	......	......	......	......	......	......
.01	.01	......	......	......	......	......	......	......	.03	......	......	.02	......	.02
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.42	.56	.61	.52	.38	.69	2.18	1.29	.54	.38	.42	......	.38	2.77	.42
.03	.04	.02	.03	......	......	......	......	.03	......	......	......	......	......	......
.01	.02	.02	.01	.19	......	......	.08	.01	......	.11	......	.02	......	.02
.07	.03	.02	.04	......	......	......	......	.04	.03	......	......	.02	......	.02
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.00	.01	......	......	......	......	......	.00	.03	......	......	.02	......	.02
.17	.15	.08	.14	.76	.69	1.40	1.06	.16	.06	.21	......	.09	......	.09
.01	.02	.01	.01	......	.69	......	.08	.01	......	......	......	......	......	......
.04	.04	.03	.03	......	.69	......	.08	.03	.03	.21	......	.07	......	.07
.06	.02	.01	.03	.38	......	.30	.04	.03	.21		......	.07	......	.07
.02	.01	.01	.01	......	......	......	......	.01	......	.11	......	.02	......	.02
.04	.01	.01	.02	.38	......	.31	.30	.03	.03	.11	......	.04	......	.04
.01	......	......	.00	......	......	......	......	......	.00	......	......	......	......	......
......	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.04	.02	.01	.02	.19	......	......	.08	.02	......	.11	......	.02	......	.02
.01	.01	......	.00	......	......	.16	.08	.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.03	.04	.02	.03	......	......	......	......	.03	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
......	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.02	.02	.02	......	......	......	......	.02	.03	......	......	.02	......	.02
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......

TABLE XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever						
4	Malarial fever (all)					3.53	.24
4a	Malarial fever, estivo-autumnal						
4b	Malarial fever, mixed						
4c	Malarial fever, quartan						
4d	Malarial fever, tertian					3.53	.24
5	Smallpox						
6	Measles (all)				1.57	3.53	1.71
6a	Measles, uncomplicated				.26	3.53	.49
6c	Measles with broncho-pneumonia				1.31		1.22
6d	Measles with lobar pneumonia						
6f	Measles with other complications						
7	Scarlet fever				.26		.24
9	Diphtheria and results				.26		.24
10	Influenza (all)				1.05	3.53	1.22
14	Dysentery (all)						
14a	Dysentery, bacillary						
14e	Dysentery, unclassified						
18	Erysipelas						
18b	Meningitis, cerebrospinal (epidemic)				1.31	7.07	1.71
19c	German measles						
19l	Mumps						
20	Septicæmia, general						
20b	Pyæmia, surgical						
22	Anthrax						
24	Tetanus						
26	Pellagra						
47	Rheumatic fever						
11, 19, 18a, 18c, 20a	Infectious disease (others)						
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs				.79	3.53	.98
29	Miliary tuberculosis, acute				.26		.24
30–35	Tuberculosis (others)				.26		.24
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)						
37c	Syphilis, secondary						
37d	Syphilis, tertiary						
38a	Chancroid						
38b	Gonococcus infection						
	IV. GENERAL DISEASES (OTHERS).						
39–45	Cancer and other malignant tumors				.26		.24
46	Benign tumors						
48	Arthritis						
50	Diabetes mellitus		4.98	1.21			
51a	Diseases of the thyroid gland (goiter simple excepted)						
53a	Leukemia						
54	Anemia						
56	Inebriety, drug addiction						
56a	Alcoholism				.52		.49
55, 88	General diseases (others)						

native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111	....	....	1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	0.43	....	0.35	....	....	....	....	....
0.11	0.66	0.18	....	....	....	0.25	....	....	....	....
.11	....	.09	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	.66	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.32	....	.26	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	.21	....	.18	....	....	....	....	....
.11	....	.09	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	0.52	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	.52	....
....	....	....	....	....	....	....	....	....	....	0.52
....	....	....	.11	0.48	.18	.12	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
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....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.18
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....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.43	....	.37	....	.95	.18	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.18
....	....	....	....	.48	.09	....	....	....	....	.18
....	.66	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	.66	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.12	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
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....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....

TABLE No. XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Number of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	0.04	0.06	0.04	0.04	0.04
63	Diseases of the spinal cord (others)	....	.01	....	.01	.01	.01
64	Apoplexy	0.13	.02	....	.02	.03	.02
69	Epilepsy	....	.01	....	.01	.01	.01
72	Chorea	....	.00	....	.00	.00	....
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	....	.00	....	.00	.00	....
	VI. MENTAL ALIENATION.						
68b	Dementia precox	.03	.00	....	.00	.00	....
56b	Psychoses (alcoholic)	....	.03	.06	.03	.03	.03
68f	Psychoses (nonalcoholic)	....	.01	....	.01	.01	.01
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75h	Retinitis	....	....	.06	.00	.00	....
75i	The eyes and annexa (other diseases of)	....	.00	.06	.00	.00	....
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	....	.01	....	.01	.01	.01
76b	Otitis media	....	.02	....	.02	.02	.02
86	IX. NASAL FOSSÆ, DISEASES OF.						
86c	Sinusitis	....	.01	....	.01	.01	.01
	X. THROAT, DISEASES OF.						
100	Pharynx, diseases of	.03	.01	....	.01	.01	.01
100a	Tonsils, diseases of	....	.03	....	.03	.03	.03
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	....	.01	....	.01	.01	.01
78	Endocarditis, acute	....	.01	.06	.01	.01	.01
79	Valvular heart diseases	....	.01	.06	.02	.01	.01
79a	Heart, other organic diseases of	.06	.06	.22	.06	.06	.06
80	Angina pectoris	.03	....	.06	.00	.00	....
81a	Aneurysm	....	.01	....	.01	.01	.01
81	Arteries, other diseases of	.03	.01	....	.01	.01	.01
82	Embolism and thrombosis	....	.01	....	.01	.01	.01
83a	Hemorrhoids	....	.00	....	.00	.00	....
83	Veins, other diseases of	....	.00	....	.00	.00	.00
84a	Status lymphaticus	....	.00	.06	.00	.00	....
84	Lymphatic system, other diseases of	....	.00	....	.00	.00	.00
85d	Hemorrhage	....	.00	.06	.00	.00	.00
85	Circulatory system, other diseases of	....	.00	....	.00	.00	.00
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	....	.01	....	.01	.01	.01
91	Broncho-pneumonia	.03	.37	.72	.38	.36	.36
92	Pneumonia, lobar	.51	1.14	5.07	1.25	1.21	1.20
92b	Pneumonia, unclassified	.03	.01	....	.01	.01	.01
93	Pleurisy	.03	.02	.06	.02	.02	.02
95	Gangrene of lung	.00	....	....	.00	.00	.00
96, 97	Respiratory systems, other diseases of	....	.01	.06	.01	.01	.01

ative troops) for the year 1917, at home and abroad—Continued

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regular.	White and colored.
0.03	0.05	0.04	0.04	......	......	0.16	.08	0.04	0.03	......	......	0.02	......	0.02
......	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.03	.03	.02	.02	......	......	......	......	.02	......	......	......	......	......	......
.01	.02	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.00	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.02	.06	.03	......	......	.16	.08	.03	......	......	......	......	......	......
.02	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.00	......	......	......	0.19	......	......	.08	.00	......	......	......	......	......	......
.00	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	.04	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.06	.03	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	.03	......	......	.02	......	.02
.03	.02	......	.02	.19	......	......	.08	.02	......	......	......	......	......	......
.06	.07	.01	.05	.19	......	.16	.15	.05	.09	0.32	......	.13	......	.13
.00	......	......	......	.19	......	......	.08	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	.03	......	......	.02	......	.02
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.00	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	.16	.08	.00	......	......	......	......	......	......
.01	.01	......	.00	......	......	......	......	.00	.03	......	......	.02	......	.02
.01	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
.28	.56	.20	.35	.38	......	1.09	.68	.36	.38	1.26	1.02	.58	1.38	.59
.93	1.73	.93	1.22	3.60	2.77	9.48	6.39	1.34	.38	1.16	......	.53	2.77	.57
.01	.01	......	.01	......	......	......	......	.01	.03	......	......	.02	......	.02
.03	.02	.01	.02	......	......	.16	.08	.02	.06	......	......	.04	......	.04
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	......	.01	.19	......	......	.08	.01	......	......	......	......	......	......

TABLE XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple				0.52		0.49
63	Diseases of the spinal cord (others)						
64	Apoplexy						
69	Epilepsy						
72	Chorea						
60, 65, 70, 73, 74a	Diseases of the nervous system (others)						
	VI. MENTAL ALIENATION.						
56b	Psychoses (alcoholic)				.26		.24
68f	Psychoses (nonalcoholic)						
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75i	The eyes and annexa (other diseases of)					3.53	.24
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis						
76b	Otitis media						
86	IX. NASAL FOSSÆ, DISEASES OF.						
86c	Sinusitis						
	X. THROAT, DISEASES OF.						
100	Pharynx, diseases of						
100a	Tonsils, diseases of						
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis						
78	Endocarditis, acute					3.53	.24
79	Valvular heart diseases						
79a	Heart, other organic diseases of						
80	Angina pectoris						
81a	Aneurysm						
81	Arteries, other diseases of						
82	Embolism and thrombosis				.26		.24
83a	Hemorrhoids						
83	Veins, other diseases of						
84a	Status lymphaticus						
84	Lymphatic system, other diseases of						
85d	Hemorrhage						
85	Circulatory system, other diseases of						
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis				.26		.24
91	Broncho-pneumonia	1.60	4.98	2.42	1.57		1.46
92	Pneumonia, lobar	6.41		4.85	3.67	10.60	4.15
92b	Pneumonia, unclassified						
93	Pleurisy						
95	Gangrene of lung						
96, 97	Respiratory systems, other diseases of						

native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regular	White and colored.	Regulars.	Regulars.	Regulars.		
0.11	....	0.09	....	....	....	....	....	....	....	....
....	....	....	0.11	....	0.09	....	....	....	....	....
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.11	....	.09	....	....	....	....	....	....	....	....
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.11	....	.09	....	....	....	....	....	....	....	....
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.11	....	.09	....	0.95	.18	0.12	....	....	....	....
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.11	....	.09	....	....	....	....	....	....	0.52	....
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....	0.66	.09	....	....	....	....	....	....	....	....
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.11	....	.09	....	.95	.18	....	....	....	....	....
....	.66	.09	.11	.48	.18	.12	....	....	....	0.18
....	....	....	....	....	....	....	....	....	....	....
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TABLE XIX.—*Deaths, total Army (including officers, American and*

RATIO PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	0.03	....	....	....	....	0.00
102	Ulcer of the stomach	.03	0.01	0.06	0.01	0.01	.01
103	Stomach, diseases of (ulcer and cancer excepted)	....	.01	.06	.01	.01	.01
108	Appendicitis	.10	.12	.22	.12	.12	.12
109	Hernia	....	.01	.06	.01	.01	.01
109a	Intestinal obstruction	....	.02	.11	.02	.02	.02
105, 110	Intestines, other diseases of	.03	.03	....	.03	.03	.03
113	Cirrhosis of the liver	.03	.00	....	.00	.01	.01
114	Cholelithiasis	....	.00	....	.00	.00	.00
115	Cholecystitis	.03	.00	....	.00	.00	.00
115a	Liver, other diseases of	....	.00	....	.00	.00	.00
117	Peritonitis, acute diffuse	....	.01	.06	.01	.01	.01
117a	Peritonitis, acute local	....	.00	....	.00	.00	.00
117b	Peritonitis, chronic	....	.01	.06	.01	.01	.01
118a	Pancreatitis	.03	.00	....	.00	.00	.00
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	.03	.03	.06	.03	.03	.03
120	Nephritis, chronic (Bright's disease)	.06	.05	.11	.05	.05	.05
122	Kidney and annexa, other diseases of	.03	.00	.06	.00	.01	.01
123	Calculi, of urinary passages	....	.00	....	.00	.00	.01
124	Bladder, diseases of	....	.00	....	.00	.00	....
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	....	.00	....	.00	.00	.00
143	Furuncle	....	.00	....	.00	.00	.00
144	Acute abscess	.10	.02	.06	.02	.03	.03
144a	Cellulitis	....	.00	....	.00	.00	.00
145	Skin and annexa, other diseases of	....	.00	.11	.01	.01	.01
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	....	.00	....	.00	.00	.00
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
189	Not specified or ill-defined diseases	....	.02	....	.02	.02	.02
	Total for diseases	2.03	4.92	11.13	5.09	4.95	4.91
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	1.36	1.19	2.06	1.22	1.22	1.22
04	Burns	....	.01	.11	.01	.01	.01
05, 06	Burns, chemical and X ray	....	.00	....	.00	.00	.00
09	Compression (brain)	....	.00	....	.00	.00	.00
10	Concussion (brain)	....	.01	....	.01	.01	.01
12	Contusion	....	.00	....	.00	.00	.00
14	Crushing	.13	.22	.17	.22	.22	.22
17-20	Dermatitis from traumatism	....	.00	....	.00	.00	.00
21	Dislocation of joint	....	.00	....	.01	.00	.00

native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.00	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.02	0.01	0.01	0.01	0.19	......	......	0.08	0.01	......	......	......	......	......	......
.01	.01	......	.01	......	0.69	......	.08	.01	......	......	......	......	......	......
.16	.15	.07	.13	.38	.69	......	.23	.13	......	0.11	......	0.02	......	0.02
.02	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.03	.02	......	.02	.19	......	......	.08	.02	......	.11	......	.02	......	.02
.04	.03	.01	.03	......	......	......	......	.03	0.03	......	......	.02	......	.02
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	......	......	......	......	......	......	......
.01	.01	......	......	......	......	......	......	......	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	1.38	.02
.01	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.01	......	.01	......	.69	......	.08	.01	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.04	.02	.01	.03	......	......	0.16	.08	.03	......	......	......	......	......	......
.07	.04	.02	.05	.19	......	......	.08	.05	......	.32	......	.07	......	.07
.01	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.03	.02	.01	.02	......	......	.16	.08	.02	......	......	......	......	......	......
.01	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	.16	.08	.01	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.03	.03	.01	.02	......	......	......	......	.02	......	.11	......	.02	......	.02
4.59	6.66	4.09	5.17	7.97	8.30	16.79	12.32	5.34	2.00	6.10	4.06	2.92	8.30	3.00
1.63	1.27	.25	1.10	2.84	7.61	.16	2.05	1.12	1.74	.63	......	1.47	2.76	1.49
.01	.02	.01	.01	......	.69	......	.08	.02	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
.02	.02	......	.01	......	......	......	......	.02	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.24	.30	.05	.21	......	2.07	......	.23	.21	.32	.10	......	.26	......	.26
.01	......	.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......

TABLE XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	......	......	......	......	......	......
102	Ulcer of the stomach	......	......	......	......	......	......
103	Stomach, diseases of (ulcer and cancer excepted)	......	......	......	......	......	......
108	Appendicitis	......	......	......	0.52	......	0.49
109	Hernia	......	......	......	.26	......	.24
109a	Intestinal obstruction	......	......	......	......	......	......
105, 110	Intestines, other diseases of	......	......	......	......	......	......
113	Cirrhosis of the liver	......	......	......	......	......	......
114	Cholelithiasis	......	......	......	......	......	......
115	Cholecystitis	......	......	......	......	......	......
115a	Liver, other diseases of	......	......	......	......	......	......
117	Peritonitis, acute diffuse	......	......	......	......	......	......
117a	Peritonitis, acute local	......	......	......	......	......	......
117b	Peritonitis, chronic	......	......	......	......	......	......
118a	Pancreatitis	......	......	......	......	......	......
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	1.60	......	1.21	.52	......	.49
120	Nephritis, chronic (Bright's disease)	......	......	......	......	......	......
122	Kidney and annexa, other diseases of	......	......	......	......	......	......
123	Calculi, of urinary passages	......	......	......	......	......	......
124	Bladder, diseases of	......	......	......	......	......	......
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	......	......	......	......	......	......
143	Furuncle	......	......	......	......	......	......
144	Acute abscess	......	......	......	......	......	......
144a	Cellulitis	......	......	......	......	......	......
145	Skin and annexa, other diseases of	......	......	......	......	......	......
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	......	......	......	......	......	......
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
189	Not specified or ill-defined diseases	......	......	......	.26	......	.24
	Total for diseases	9.62	9.95	9.70	14.69	38.87	16.36
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	1.60	......	1.21	5.77	7.07	5.86
04	Burns	......	......	......	......	3.53	.24
05, 06	Burns, chemical and X ray	......	......	......	......	......	......
09	Compression (brain)	......	......	......	......	......	......
10	Concussion (brain)	......	......	......	......	......	......
12	Contusion	......	......	......	......	......	......
14	Crushing	......	......	......	1.57	......	1.46
17-20	Dermatitis from traumatism	......	......	......	......	......	......
21	Dislocation of joint	......	......	......	.26	......	.24
22, 23	Drowning (except suicides)	......	......	......	1.31	3.53	1.46
34	Foreign bodies	......	......	......	......	......	......
36	Fracture, simple	......	......	......	.52	......	.49
45	Fracture, compound	......	......	......	.26	......	24

native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1,914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars and colored.	White	Regulars.	Regulars.		
......	......	......	......	......	......	......	......	......	......	......
0.11	......	0.09	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
.11	......	.09	0.11	0.48	0.18	......	......	......	......	......
......	......	......	......	.48	.09	......	......	......	......	......
......	......	......	......	.48	.09	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
.11	......	.09	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
11	......	.09	......	.48	.09	......	......	......	......	......
......	0.66	.09	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
.22	......	.18	......	......	......	0.12	......	......	......	0.18
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	.48	.09	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
2.24	3.32	2.39	1.40	6.66	2.37	.99	......	......	1.04	1.27
1.71	1.33	1.65	1.93	1.90	1.93	2.34	......	......	1.57	.73
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	.12	......	......	......	......
.11	......	.09	......	......	......	......	......	......	......	......
.43	......	.37	.43	......	.35	......	......	......	......	.18
......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......
.32	......	.28	......	......	......	.62	......	......	1.04	.18
......	......	......	......	......	......	......	......	......	......	......
.11	.66	.18	.54	......	.44	.12	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......

TABLE XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
22, 23	Drowning (except suicides)	0.06	0.15	0.22	0.16	0.15	0.15
34	Foreign bodies	.16	.00	....	.00	.01	.01
36	Fracture, simple	.06	.11	.22	.12	.12	.11
35	Fracture, compound	....	.04	.06	.04	.04	.04
38–48	Fracture, faulty union	....	.00	....	.00	.00	.00
37	Fracture, comminuted	....	.01	....	.01	.01	.01
50	Gases deleterious, absorption of	....	.00	....	.00	.00	.00
51	Gunshot wound	.09	.09	.17	.09	.09	.09
52–56	Hemorrhage and results	.03	.01	....	.01	.01	.01
59	Homicides	.06	.03	.28	.04	.04	.04
66	Poisoning by food	....	.00	....	.01	.00	.00
67	Poisoning, other acute	....	.05	....	.05	.04	.04
96	Secondary result of injury	....	.00	....	.00	.00	.00
79	Suicide	.44	.20	.39	.20	.21	.21
81	Synovitis, traumatic, cause undetermined	....	.00	....	.00	.00	.00
93	Wounds, multiple	.03	.00	....	.00	.00	.00
94	Wounds, penetrating	.06	.03	.11	.03	.03	.03
95	Wounds, perforating	.13	.07	.17	.08	.08	.08
86–91	Wounds, others	....	.04	....	.04	.04	.04
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	.09	.06	.17	.06	.06	.06
80	Sunstroke	....	.00	....	.00	.00	.00
	Total for diseases	.203	4.92	11.13	5.09	4.95	4.91
	Total for external causes	1.36	1.19	2.06	1.22	1.22	1.22
	Grand total	3.40	6.11	13.19	6.31	6.17	6.13
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1.36	1.19	2.06	1.22	1.22	1.22
01–19	Total military agents	.73	.38	1.06	.40	.42	.42
01	Bayonet	....	.00	....	.00	.00	.00
02	Club	....	.00	....	.00	.00	.00
04	Gas, asphyxiative	....	.01	....	.01	.01	.01
07	Hand grenade	.03	.00	....	.00	.01	.01
08	Knife	....	.02	....	.02	.02	.02
09	Pistol ball	.44	.14	.56	.16	.17	.17
10	Rifle ball	.16	.14	.45	.15	.15	.15
12	Shell	.03	.02	....	.02	.02	.02
13	Shrapnel	....	.00	....	.00	.00	.00
14	Cutting or piercing instruments	.03	.03	.06	.03	.03	.03
15	Secondary missile	.03	....	....	....	.00	.00
16–19	Others, military agents	....	.00	....	.00	.00	.00

native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
0.21	0.21	......	0.15	......	2.07	......	0.23	0.15	0.06	......	......	0.04	......	0.04
......	......	0.01	.00	......	......	......	......	.00	......	......	......	......	......	......
.16	.09	.04	.10	0.19	......	0.16	.15	.10	.17	......	......	.13	1.38	.15
.06	.06	.01	.05	......	.69	......	.08	.04	.06	......	......	.04	......	.04
.02	......	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.02	.01	......	.02	......	......	......	......	.02	.03	......	......	.02	......	.02
.01	.01	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.06	.11	.01	.06	.38	.69	......	.23	.07	.49	0.21	......	.42	......	.42
.01	......	.01	.01	......	......	......	......	.01	.03	......	......	.02	......	.02
.09	.01	......	.04	.75	......	......	.30	.04	.06	......	......	.04	......	.04
.01	......	......	.00	......	......	......	......	.00	......	.10	......	.02	......	.02
.08	.02	.01	.03	......	......	......	......	.03	......	......	......	......	......	......
......	.01	......	......	......	......	......	......	.00	......	......	......	......	......	......
.32	.14	.09	.19	.56	.69	......	.30	.20	.14	......	......	.11	......	.11
......	.01	......	.00	......	......	......	......	.00	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.05	......	.01	.02	......	......	......	......	.02	.17	......	......	.13	1.38	.15
.14	.07	......	.07	.38	.69	......	.23	.08	.08	......	......	.06	......	.06
.04	.07	......	.04	......	......	......	......	.03	.03	.21	......	.06	......	.06
.08	.07	.01	.06	.56	......	......	.23	.06	.08	......	......	.06	......	.06
.01	......	......	.00	......	......	......	......	.00	......	......	......	......	......	......
4.59	6.66	4.09	5.17	7.97	8.30	16.79	12.32	5.34	2.00	6.10	4.06	2.92	8.30	3.00
1.63	1.27	.25	1.10	2.85	7.61	.16	2.05	1.12	1.74	.63	......	1.47	2.77	1.49
6.22	7.93	4.34	6.27	10.81	15.92	16.94	14.37	6.46	3.75	6.73	4.06	4.38	11.06	4.49
1.63	1.27	.25	1.10	2.85	7.61	.16	2.05	1.12	1.74	.63	......	1.47	2.77	1.49
.58	.35	.07	.35	2.27	2.07	......	1.14	.36	.87	.21	......	.71	1.38	.72
.01	.00	......	......	......	......	......	......	.00	......	......	......	......	......	......
.01	.01	......	......	......	......	......	......	.00	.03	......	......	.02	......	.02
.02	.01	.01	.01	......	......	......	......	.02	......	......	......	......	......	......
.01	......	......	.00	......	......	......	......	......	.03	.10	......	.04	......	.04
.04	.01	.03	.02	......	......	......	......	.02	.03	......	......	.02	......	.02
.26	.12	.01	.14	1.13	.69	......	.53	.15	.26	......	......	.20	1.38	.22
.18	.16	.01	.13	.95	1.38	......	.53	.14	.20	.10	......	.18	......	.17
.01	.01	......	.00	......	......	......	......	.00	.23	......	......	.18	......	.17
......	......	......	......	......	......	......	......	......	.03	......	......	.02	......	.02
.04	.03	.03	.03	.19	......	......	.08	.03	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	.06	......	......	.04	......	.04

TABLE No. XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength.	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
38–48	Fracture, faulty union						
37	Fracture, comminuted						
50	Gases deleterious, absorption of						
51	Gunshot wound	1.60		1.21			
52–56	Hemorrhage and results				0.26		0.24
59	Homicides						
66	Poisoning by food				.26		.24
67	Poisoning, other acute				.26		.24
96	Secondary result of injury						
79	Suicide				1.05		.98
81	Synovitis, traumatic, cause undetermined						
93	Wounds, multiple						
94	Wounds, penetrating						
95	Wounds, perforating						
86–91	Wounds, others						
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others						
80	Sunstroke						
	Total for diseases	9.62	9.95	9.70	14.69	38.87	16.36
	Total for external causes	1.60		1.21	5.77	7.07	5.86
	Grand total	11.22	9.95	10.91	20.45	45.94	22.21
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1.60		1.21	5.77	7.07	5.86
01–19	Total military agents	1.60		1.21	1.05		.98
01	Bayonet						
02	Club						
04	Gas, asphyxiative						
07	Hand grenade						
08	Knife						
09	Pistol ball				.52		.49
10	Rifle ball	1.60		1.21	.52		.49
12	Shell						
13	Shrapnel						
14	Cutting or piercing instruments						
15	Secondary missile						
16–19	Others, military agents						

native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1.914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
			0.11		0.09					
						0.12				0.18
	0.66	0.09								
0.75		.64	.32		.26					
			.32	1.43	.53	.62			0.52	
						.25				
			.11	.48	.18	.12				
						.12				
						.25				.18
			.11		.09					
2.24	3.32	2.39	1.40	6.66	2.37	.99			1.04	1.27
1.71	1.33	1.65	1.93	1.90	1.93	2.34			1.57	.73
3.95	4.65	4.04	3.33	8.56	4.29	3.33			2.61	2.00
1.71	1.33	1.65	1.93	1.90	1.93	2.34			1.57	1.73
			.32	1.43	.53	1.11			.52	.18
			.11	.95	.26	.25				
			.11	.48	.18	.62			.52	.18
			.11		.09	.25				

TABLE XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	31,511	621,680	17,965	639,645	671,156	678,579
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
20–29	Total by sinking ships	....	0.00	....	0.00	0.00	0.00
22	Sinking ships by submarine	....	.00	....	.00	.00	.00
30–39	Total by air machines	0.16	.03	....	.03	.04	.04
30	Aeroplane	.16	.03	....	.03	.04	.04
40–49	Total by vehicles and animals	.13	.32	0.28	.32	.31	.31
40	Automobile	....	.07	....	.07	.06	.06
41	Motorcycle	.06	.03	....	.03	.03	.03
42	Railroad accident	....	.16	.28	.17	.16	.16
43	Street-car accident	.03	.03	....	.03	.03	.03
44	Others by vehicles	....	.01	....	.01	.01	.01
45	Animals	.03	.02	....	.02	.02	.02
50–59	Total by industrial agents	.13	.11	.17	.11	.11	.11
50	Conflagrations	....	.01	....	.01	.01	.01
51	Crushing	....	.01	.06	.01	.01	.01
52	Electricity	....	....	.06	.00	.00	.00
53	Fall	.13	.08	.06	.08	.08	.08
54	Falling timbers	....	.01	....	.01	.01	.01
57	Machinery	....	.00	....	.00	.00	.00
70–79	Total by natural causes	....	.03	.06	.03	.03	.02
73	Strangulations	....	.02	....	.02	.01	.01
74	Falling earth	....	.01	....	.01	.01	.01
76	Hot liquid	....	.00	.06	.00	.00	.00
80–81	Total by chemicals and poisons	....	.04	....	.04	.04	.04
80	Chemicals	....	.02	....	.02	.02	.02
81	Poison	....	.02	....	.02	.02	.02
99	All others from external agents	.22	.28	.50	.28	.28	.28

native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.									Europe.					
White.				Colored.				Total.	White.				Colored.	Total.
193,991	192,044	159,483	545,518	5,272	1,445	6,433	13,150	558,668	34,439	9,505	984	44,928	723	45,651
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total	White and colored.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
......	......	......	......	......	......	......	......	......	0.03	......	......	0.02	......	0.02
......	......	......	......	......	......	......	......	......	.03	......	......	.02	......	.02
0.09	......	......	0.03	......	......	......	......	0.03	.06	......	......	.04	......	.04
.09	......	......	.03	......	......	......	......	.03	.06	......	......	.04	......	.04
.34	0.43	0.08	.30	......	2.77	0.16	0.38	.30	.41	0.10	......	.33	......	.33
.11	.06	.03	.07	......	......	......	......	.07	.06	......	......	.04	......	.04
.02	.02	.00	.01	......	......	......	......	.02	.14	......	......	.11	......	.11
.09	.30	.04	.15	......	2.77	.16	.38	.15	.20	.10	......	.18	......	.17
.06	.03	.00	.03	......	......	......	......	.03	......	......	......	......	......	......
.02	.02	......	.01	......	......	......	......	.01	......	......	......	......	......	......
.04	.01	......	.02	......	......	......	......	.02	......	......	......	......	......	......
.16	.12	.02	.11	......	......	......	......	.10	.11	......	......	.01	0.01	.11
.01	.01	......	.01	......	......	......	......	.00	......	......	......	......	......	......
.01	.03	......	.01	......	......	......	......	.02	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
.11	.08	.02	.08	......	......	......	......	.07	.08	......	......	.01	.01	.08
.02	......	......	.01	......	......	......	......	.00	......	......	......	......	......	......
......	.00	......	......	......	......	......	......	.00	.03	......	......	.02	......	.02
.04	.04	.02	.03	......	.69	......	.07	.03	......	......	......	......	......	......
.02	.03	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
.01	.00	.01	.01	......	......	......	......	.01	......	......	......	......	......	......
......	.00	.01	.00	......	.69	......	.07	.00	......	......	......	......	......	......
.08	.01	.03	.04	......	......	......	......	.04	......	......	......	......	......	......
.05	.00	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
.04	......	.01	.02	......	......	......	......	.02	......	......	......	......	......	......
.35	.32	.03	.25	0.57	2.08	......	.46	.25	.26	.32	......	.26	......	.26

TABLE No. XIX.—*Deaths, total Army (including officers, American and*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Mexico.			China, transports and others.		
		White.	Colored.	Total.	White.	Colored.	Total.
	Mean strength.	624	201	825	3,813	283	4,096
	Causes of admission to sick report.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
20–29	Total by sinking ships	....	....	....	....	....	....
22	Sinking ships by submarine	....	....	....	....	....	....
30–39	Total by air machines	....	....	....	0.26	....	0.24
30	Aeroplane	....	....	....	.26	....	.24
40–49	Total by vehicles and animals	....	....	....	2.10	....	1.95
40	Automobile	....	....	....	.26	....	.24
41	Motorcycle	....	....	....	....	....	....
42	Railroad accident	....	....	....	1.83	....	1.71
43	Street-car accident	....	....	....	....	....	....
44	Others by vehicles	....	....	....	....	....	....
45	Animals	....	....	....	....	....	....
50–59	Total by industrial agents	....	....	....	.52	....	.49
50	Conflagrations	....	....	....	....	....	....
51	Crushing	....	....	....	....	....	....
52	Electricity	....	....	....	....	....	....
53	Fall	....	....	....	.52	....	.49
54	Falling timbers	....	....	....	....	....	....
57	Machinery	....	....	....	....	....	....
70–79	Total by natural causes	....	....	....	....	....	....
73	Strangulations	....	....	....	....	....	....
74	Falling earth	....	....	....	....	....	....
76	Hot liquid	....	....	....	....	....	....
80–81	Total by chemicals and poisons	....	....	....	....	....	....
80	Chemicals	....	....	....	....	....	....
81	Poisons	....	....	....	....	....	....
99	All others from external agents	....	....	....	1.83	7.07	2.20

native troops), for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Philippine Islands.			Hawaii.			Panama.	Native troops.			
							Porto Ricans.			Philippine Scouts.
White.	Colored.	Total.	White.	Colored.	Total.	White.	In Porto Rico.	In Panama.	Total.	
9,373	1,506	10,879	9,313	2,102	11,415	8,111			1.914	5,509
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	Regulars.		
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
0.43	....	0.37	0.97	....	0.79	0.37	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
....	....	....	.64	....	.53	....	....	....	....	....
.22	....	.18	.21	....	.18	.12	....	....	....	....
.22	....	.18	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.25	....	....	....	....
.22	0.66	.28	.11	0.48	.18	....	....	....	....	0.36
....	....	....	....	....	....	....	....	....	....	....
....	.66	.09	....	....	....	....	....	....	....	.18
....	....	....	....	.48	.09	....	....	....	....	....
.22	....	.18	.11	....	.09	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	.18
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....
.11	....	.09	.21	....	.18	.12	....	....	....	....
.11	....	.09	.11	....	.09	.12	....	....	....	....
....	....	....	.11	....	.09	....	....	....	....	....
.96	.66	.92	.32	....	.26	.74	....	....	1.04	.18

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	412	12,487	28	12,515	12,927	12,927
2	Typhus fever	17	132	9	141	158	158
3	Relapsing fever (all)	....	254	....	254	254	254
4	Malarial fevers (all)	1,298	44,883	1,825	46,708	48,006	51,760
4a	Malarial fever, estivo-autumnal	166	6,212	380	6,592	6,758	7,642
4b	Malarial fever, mixed	....	33	6	39	39	39
4c	Malarial fever, quartan	26	554	1	555	581	581
4d	Malarial fever, tertian	909	28,275	1,239	29,514	30,423	33,179
4e	Malarial fever, undetermined	197	9,809	199	10,008	10,205	10,319
5	Smallpox	57	2,397	562	2,959	3,016	3,078
6	Measles (all)	3,691	547,497	13,597	561,094	564,785	566,794
6a	Measles, uncomplicated	3,597	457,938	12,118	470,056	473,653	475,662
6c	Measles with broncho-pneumonia	....	33,736	419	34,155	34,155	34,155
6d	Measles with lobar pneumonia	....	18,228	504	18,732	18,732	18,732
6f	Measles with other complications	94	37,595	556	38,151	38,245	38,245
7	Scarlet fever	553	49,754	324	50,078	50,631	50,631
8	Whooping cough	....	408	12	420	420	420
9	Diphtheria and results	413	21,475	115	21,590	22,003	22,018
10	Influenza (all)	6,947	160,277	2,797	163,074	170,021	170,990
14	Dysentery (all)	1,015	14,414	902	15,316	16,331	16,715
14a	Dysentery, bacillary	16	702	32	734	750	783
14b	Dysentery, balantidic	....	19	....	19	19	19
14c	Dysentery, entamœbic	818	10,479	712	11,191	12,009	12,089
14d	Dysentery (other protozoal)	....	40	3	43	43	43
14e	Dysentery, unclassified	181	3,174	155	3,329	3,510	3,781
15	Plague	....	55	....	55	55	55
17	Leprosy	....	64	....	64	64	153
18	Erysipelas	234	9,736	246	9,982	10,216	10,229
18b	Meningitis, cerobrospinal (epidemic)	214	23,476	800	24,276	24,490	24,571
19a	Chicken pox	149	3,510	745	4,255	4,404	5,031
19b	Diphtheria bacillus carrier	32	3,430	151	3,581	3,613	3,613
19c	German measles	1,538	76,921	434	77,355	78,893	79,836
19d	Hemoglobinuric fever (nonmalarial)	....	16	14	30	30	30
19e	Paratyphoid fever A	92	623	....	623	715	715
19f	Paratyphoid fever B	7	246	....	246	253	253
19g	Trench fever	106	399	....	399	505	505
19i	Typhoid bacillus carrier	....	399	....	399	399	462
19j	Typhoid vaccination	698	27,418	511	27,929	28,627	28,679
19k	Vaccinia	385	34,050	353	34,403	34,788	34,814
19l	Mumps	1,797	301,472	11,054	312,526	314,323	316,030
20	Septicemia, general	23	982	....	982	1,005	1,005
20b	Pyæmia, surgical	....	261	....	261	261	261
21	Glanders	8	44	....	44	52	52
22	Anthrax	....	294	....	294	294	294
24	Tetanus	....	165	....	165	165	166
25	Trench foot	11	850	....	850	861	861
25a	Mycoses (others)	4	371	....	371	375	375
26	Pellagra	....	222	53	275	275	275
27	Beriberi	....	....	....	....	....	167
47	Rheumatic fever	1,575	76,030	1,676	77,706	79,281	79,467
11, 19 18a 18c 20a	Infectious disease (others)	470	18,944	467	19,411	19,881	22,663
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	5,962	175,409	9,494	184,903	190,865	191,650
29	Miliary tuberculosis, acute	16	791	7	798	814	836
30-35	Tuberculosis (others)	349	11,347	756	12,103	12,452	12,897

American and native troops) for the year 1917, at home and abroad.

ABSOLUTE NUMBERS.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
2,346	5,227	1,824	9,397	5		12	17	9,414
	123		123					123
117	43	16	176					176
13,247	13,943	3,308	30,498	313	72	171	556	31,054
820	471	248	1,539	20		3	23	1,562
5	4	2	11		6		6	17
179	181		360			1	1	361
10,624	7,484	1,689	19,797	225	51	152	428	20,225
1,619	5,803	1,369	8,791	68	15	15	98	8,889
1,109	642	573	2,324	178		384	562	2,886
137,076	237,787	149,617	524,480	2,358	567	8,995	11,920	536,400
112,123	196,858	128,469	437,450	2,215	533	7,876	10,624	448,074
7,394	16,817	8,286	32,497	17		295	312	32,809
3,927	9,881	4,378	18,186	48	26	430	504	18,690
13,632	14,231	8,484	36,347	78	8	394	480	36,827
27,065	10,321	8,075	45,461	42		211	253	45,714
214	127	57	398			12	12	410
11,717	6,752	1,735	20,204	55	28	32	115	20,319
51,342	51,532	28,566	131,440	622	264	971	1,857	133,297
7,471	1,884	686	10,041	227	1	139	367	10,408
243	185	59	487			32	32	519
5,971	927	179	7,077	184		37	221	7,298
37		3	40					40
1,220	772	445	2,437	43	1	70	114	2,551
49	6		55					55
	23	41	64					64
4,659	3,200	1,535	9,394	91	12	143	246	9,640
7,470	7,091	7,146	21,707	61	48	612	721	22,428
1,861	868	466	3,195	225	12	403	640	3,835
673	603	896	2,172			65	65	2,237
25,538	24,817	24,028	74,383	142	84	153	379	74,762
10		6	16		14		14	30
230	367		597					597
69	195	63	327					327
12,546	5,170	9,098	26,814	233	50	225	508	27,322
17,405	9,380	6,007	32,792	199	33	110	342	33,134
87,586	114,449	48,315	250,350	865	1,428	1,880	4,173	254,523
486	355	98	939					939
255	6		261					261
3	31	10	44					44
142	151	1	294					294
82	27		109					109
7			7					7
237	91	33	361					361
25	149	34	208	7		46	53	261
36,523	24,985	8,584	70,092	486	331	476	1,293	71,385
1,624	4,394	8,962	14,980	7	26	219	252	15,232
83,654	43,354	23,263	150,271	2,610	630	3,854	7,094	157,365
130	490	132	752		7		7	759
5,059	2,811	2,037	9,907	124	96	211	431	10,338

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	229	7	....	236	11	247
2	Typhus fever	....	....	....	....	....	....
3	Relapsing fever (all)	....	....	....	....	....	....
4	Malarial fevers (all)	783	69	....	852	24	876
4a	Malarial fever, estivo-autumnal	28	....	....	28	....	28
4b	Malarial fever, mixed	....	....	....	....	....	....
4c	Malarial fever, quartan	22	....	....	22	....	22
4d	Malarial fever, tertian	348	30	....	378	14	392
4e	Malarial fever, undetermined	385	39	....	424	10	434
5	Smallpox	....	....	....	....	....	....
6	Measles (all)	5,510	6,522	224	12,256	420	12,676
6a	Measles, uncomplicated	4,960	5,893	135	10,988	385	11,373
6c	Measles with broncho-pneumonia	291	150	12	453	....	453
6d	Measles with lobar pneumonia	....	17	....	17	....	17
6f	Measles with other complications	259	462	77	798	35	833
7	Scarlet fever	1,346	1,303	167	2,816	....	2,816
8	Whooping cough	....	10	....	10	....	10
9	Diphtheria and results	817	103	10	930	....	930
10	Influenza (all)	10,005	10,636	445	21,086	293	21,379
14	Dysentery (all)	589	16	....	605	3	608
14a	Dysentery, bacillary	35	....	....	35	....	35
14b	Dysentery, balantidic	....	....	....	....	....	....
14c	Dysentery, entamœbic	252	....	....	252	....	252
14d	Dysentery (other protozoal)	....	....	....	....	3	3
14e	Dysentery, unclassified	302	16	....	318	....	318
15	Plague	....	....	....	....	....	....
17	Leprosy	....	....	....	....	....	....
18	Erysipelas	122	73	1	196	....	196
18b	Meningitis, cerebrospinal (epidemic).	851	313	96	1,260	23	1,283
19a	Chicken pox	65	75	16	156	....	156
19b	Diphtheria bacillus carrier	139	....	....	139	....	139
19c	German measles	1,244	302	67	1,613	32	1,645
19d	Hemoglobinuric fever (nonmalarial).	....	....	....	....	....	....
19e	Paratyphoid fever A	26	....	....	26	....	26
19f	Paratyphoid fever B	246	....	....	246	....	246
19g	Trench fever	343	56	....	399	....	399
19i	Typhoid bacillus carrier	....	....	....	....	....	....
19j	Typhoid vaccination	123	7	6	136	3	139
19k	Vaccinia	90	46	....	136	4	140
19l	Mumps	23,103	14,072	695	37,870	3,124	40,994
20	Septichæmia, general	39	4	....	43	....	43
20b	Pyæmia, surgical	....	....	....	....	....	....
21	Glanders	....	....	....	....	....	....
22	Anthrax	....	....	....	....	....	....
24	Tetanus	....	....	....	....	....	....
25	Trench foot	726	100	....	826	....	826
25a	Mycoses (others)	....	....	....	....	....	....
26	Pellagra	....	....	....	....	....	....
27	Beriberi	....	....	....	....	....	....
47	Rheumatic fever	2,621	1,153	61	3,835	104	3,939
11, 19, 18a, 18c, 20a	Infectious disease (others)	146	1	106	253	16	269
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	4,581	460	117	5,158	368	5,526
29	Miliary tuberculosis, acute	....	....	....	....	....	....
30–35	Tuberculosis (others)	568	147	7	722	17	739

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
....	....	....	....	....	....	....	....	....	2,854	....	2,854
....	....	....	....	....	....	....	....	....	9	9	18
....	....	....	2	....	2	....	....	....	....	....	....
26	31	57	382	47	429	5,260	1,152	6,412	362	15	377
6	....	6	3	....	3	795	348	1,143	60	9	69
15	....	15	....	....	....	....	....	....	....	....	....
....	....	....	39	....	39	73	....	73	....	....	....
....	....	....	196	25	221	4,226	766	4,992	302	6	308
5	31	36	144	22	166	166	38	204	....	....	....
....	....	....	54	....	54	19	....	19	....	....	....
12	69	81	7,311	577	7,888	334	29	363	2,144	582	2,726
12	69	81	6,429	547	6,976	316	29	345	1,809	464	2,273
....	....	....	581	30	611	....	....	....	179	77	256
....	....	....	25	....	25	....	....	....	....	....	....
....	....	....	276	....	276	18	....	18	156	41	197
....	....	....	992	71	1,063	1	....	1	438	....	438
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	263	....	263	....	....	....	78	....	78
53	71	124	4,877	209	5,086	153	92	245	932	275	1,207
6	....	6	290	27	317	3,268	505	3,773	177	....	177
....	....	....	170	....	170	....	....	....	10	....	10
....	....	....	....	....	....	19	....	19	....	....	....
6	....	6	57	26	83	2,928	465	3,393	132	....	132
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	63	1	64	321	40	361	35	....	35
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	31	....	31	58	....	58	49	....	49
....	....	....	421	34	455	....	....	....	68	22	90
....	....	....	86	19	105	30	....	30	43	86	129
....	....	....	....	1	1	....	14	14	1,119	71	1,190
....	....	....	841	23	864	13	....	13	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....	....
9	....	9	428	....	428	31	....	31	....	....	....
4	....	4	949	7	956	27	....	27	114	....	114
....	....	....	7,770	1,205	8,975	1,575	929	2,504	3,774	1,623	5,397
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	56	....	56
....	....	....	17	....	17	....	....	....	....	....	....
....	....	....	10	....	10	....	....	....	....	....	....
....	....	....	14	....	14	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
69	75	144	1,086	81	1,167	425	88	513	319	35	354
....	....	....	127	33	160	2,896	166	3,062	39	....	39
550	260	810	5,262	387	5,649	7,867	712	8,579	4,238	673	4,911
....	....	....	39	....	39	....	....	....	....	....	....
....	....	....	299	40	339	47	199	246	74	69	143

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	1,469	196,009	17,213	213,222	214,691	217,928
37a	Syphilis, hereditary	....	665	17	682	682	682
37b	Syphilis, primary	334	46,810	4,867	51,677	52,011	53,439
37c	Syphilis, secondary	420	112,808	6,944	119,752	120,172	121,600
37d	Syphilis, tertiary	715	35,726	5,385	41,111	41,826	42,207
38a	Chancroid	168	130,600	15,407	146,007	146,175	147,299
38b	Gonococcus infection	2,172	495,181	21,143	516,324	518,496	522,724
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	27	929	....	929	956	956
39–45	Cancer and other malignant tumors	335	2,357	33	2,390	2,725	2,725
46	Benign tumors	331	9,826	493	10,319	10,650	10,965
48	Arthritis	1,377	62,610	2,335	64,945	66,322	66,580
48a	Gout	100	258	....	258	358	358
49	Scurvy	....	47	....	47	47	47
50	Diabetes mellitus	364	2,426	52	2,478	2,842	2,842
51a	Diseases of the thyroid gland (goiter simple excepted)	257	11,755	65	11,820	12,077	12,077
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted)	....	770	32	802	802	829
53a	Leukemia	....	129	....	129	129	129
54	Anæmia	52	2,159	34	2,193	2,245	2,249
55a	Purpura rheumatica	....	54	....	54	54	54
56	Inebriety, drug addiction	276	5,537	257	5,794	6,070	6,070
56a	Alcoholism	214	9,579	255	9,834	10,048	10,057
57–59	Poisoning, chronic	....	363	90	453	453	468
55, 88	General diseases (others)	482	28,833	1,162	29,995	30,477	30,674
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	916	18	934	934	934
62	Locomotor ataxia	61	1,284	....	1,284	1,345	1,345
63	Diseases of the spinal cord (others)	137	2,392	391	2,783	2,920	3,027
64	Apoplexy	136	265	....	265	401	401
66	Paralysis, cause not specified	182	4,608	262	4,870	5,052	5,091
69	Epilepsy	176	30,058	1,800	31,858	32,034	32,059
72	Chorea	....	1,911	....	1,911	1,911	1,911
73	Hysteria and results (psychoses excepted)	1,051	12,501	561	13,062	14,113	14,520
73a	Neuralgia	337	6,762	440	7,202	7,539	7,566
73b	Neuritis	529	9,339	144	9,483	10,012	10,184
74	Neurasthenia	3,128	16,071	589	16,660	19,788	19,854
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	194	15,741	581	16,322	16,516	16,560
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane	....	1,173	31	1,204	1,204	1,204
68a	Constitutional psychopathic states	278	9,703	447	10,150	10,428	10,505
68b	Dementia præcox	213	33,993	2,117	36,110	36,323	36,383
68c	Mental deficiency	....	21,629	935	22,564	22,564	22,634
68d	Psychasthenia	197	1,545	....	1,545	1,742	1,787
68e	Psychoneurosis	48	4,887	52	4,939	4,987	4,987
56b	Psychoses (alcoholic)	23	2,092	22	2,114	2,137	2,137
68f	Psychoses (nonalcoholic)	678	11,113	690	11,803	12,481	12,505
68	Mental alienation (others)	318	2,041	76	2,117	2,435	2,536

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
70,427	59,979	31,382	161,788	6,614	1,365	6,049	14,028	175,816
275	101	46	422					422
16,478	14,683	7,603	38,764	1,418	492	2,450	4,360	43,124
39,027	36,940	19,310	95,277	2,363	705	2,234	5,302	100,579
14,647	8,255	4,423	27,325	2,833	168	1,365	4,366	31,691
52,641	39,329	12,147	104,117	4,823	1,581	3,165	9,569	113,686
165,587	200,320	71,901	437,808	6,115	2,517	8,263	16,895	454,703
463	302	120	885					885
889	999	111	1,999	33			33	2,032
4,277	2,650	1,407	8,334	160		149	309	8,643
22,938	20,255	11,506	54,699	941	395	692	2,028	56,727
148	48	18	214					214
19	20	8	47					47
1,037	772	344	2,153	23			23	2,176
3,060	6,081	1,814	10,955			65	65	11,020
312	131	181	624	32			32	656
68	61		129					129
955	687	310	1,952	5			5	1,957
38		16	54					54
1,678	920	2,610	5,208	127	15	114	256	5.464
4,422	1,816	970	7,208	38		8	46	7,254
131	133	46	310					310
11,024	9,861	4,867	25,752	391	281	146	818	26,570
424	336	83	843			18	18	861
430	228	215	873					873
688	798	605	2,091	355	4	32	391	2,482
53	74	38	165					165
2,103	1,566	399	4,068	38		90	128	4,196
14,259	7,431	5,090	26,780	570	72	838	1,480	28,260
936	588	145	1,669					1,669
4,181	3,136	2,145	9,462	72	32	247	351	9,813
3,151	1,758	954	5,863	323		65	388	6,251
4,451	2,114	1,764	8,329	14	43	47	104	8,433
5,666	3,707	3,182	12,555	80	43	24	147	12,702
6,890	5,041	2,824	14,755	207	3	173	383	15,138
808	67	75	950	31			31	981
4,952	2,004	1,056	8,012	280	28		308	8,320
16,585	6,544	3,090	26,219	687		146	833	27,052
9,716	6,302	3,462	19,480	386	7	235	628	20,108
467	497	491	1,455					1,455
1,815	1,536	1,144	4,495	7	2	30	39	4,534
893	547	437	1,877	9		10	19	1,896
4,513	2,790	2,625	9,928	396		126	522	10,450
1,180	370	247	1,797	63		8	71	1,868

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	8,839	1,486	92	10,417	350	10,767
37a	Syphilis, hereditary	150			150		150
37b	Syphilis, primary	3,425	488	24	3,937	138	4,075
37c	Syphilis, secondary	3,784	739	68	4,591	103	4,694
37d	Syphilis, tertiary	1,480	259		1,739	109	1,848
38a	Chancroid	6,373	544	44	6,961	96	7,057
38b	Gonococcus infection	15,653	2,806	183	18,642	375	19,017
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	7			7		7
39–45	Cancer and other malignant tumors	44	1		45		45
46	Benign tumors	302	81		383	26	409
48	Arthritis	3,398	970	58	4,426	43	4,469
48a	Gout						
49	Scurvy						
50	Diabetes mellitus	29			29		29
51a	Diseases of the thyroid gland (goiter simple excepted)	88	70		158		158
51b, 52, 53b, 116	Diseases of the ductless glands (thyroid excepted)	31		14	45		45
53a	Leukemia						
54	Anæmia	2	13		15		15
55a	Purpura rheumatica						
56	Inebriety, drug addiction	121	21		142		142
56a	Alcoholism	318	65	3	386	3	389
57–59	Poisoning, chronic	20			20		20
55, 88	General diseases (others)	920	473	29	1,422	80	1,502
	V. NERVOUS SYSTEM, DISEASES (ALL).						
61	Meningitis, simple	1	39		40		40
62	Locomotor ataxia	267	22		289		289
63	Diseases of the spinal cord (others)	86			86		86
64	Apoplexy						
66	Paralysis, cause not specified	107	103		210		210
69	Epilepsy	1,163	107	5	1,275	40	1,315
72	Chorea	9	121		130		130
73	Hysteria and results (psychoses excepted)	992	366	5	1,363	23	1,386
73a	Neuralgia	124	60		184	6	190
73b	Neuritis	324	80	17	421	10	431
74	Neurasthenia	339	195		534		534
60, 65, 70, 73, 74a	Diseases of the nervous system (others)	321	168	2	491	25	516
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane	23	20		43		43
68a	Constitutional psychopathic states	67			67	7	74
68b	Dementia præcox	1,013	193		1,206		1,206
68c	Mental deficiency	1,014	27		1,041	13	1,054
68d	Psychasthenia	33			33		33
68e	Psychoneurosis	72			72		72
56b	Psychoses (alcoholic)	27			27	3	30
68f	Psychoses (nonalcoholic)	475	36		511		511
68	Mental alienation (others)	51			51		51

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
380	306	686	5,163	337	5,500	11,469	886	12,355	2,609	1,306	3,915
....	....	....	....	....	....	5	....	5	86	17	103
....	....	....	1,224	141	1,365	1,832	131	1,963	445	97	542
174	97	271	2,935	67	3,002	7,405	563	7,968	907	812	1,719
206	209	415	1,004	129	1,133	2,227	192	2,419	1,171	380	1,551
103	87	190	3,353	90	3,443	7,010	4,520	11,530	4,370	1,045	5,415
108	116	224	9,658	526	10,184	15,362	1,900	17,262	7,126	1,331	8,457
....	....	....	15	....	15	1	....	1	....	....	....
....	....	....	103	....	103	52	....	52	81	....	81
10	....	10	238	....	238	179	62	241	552	96	648
9	9	18	1,037	71	1,108	801	95	896	923	89	1,012
....	....	....	22	....	22	8	....	8	14	....	14
....	....	....	....	....	....	....	....	....	....	....	....
....	29	29	....	....	....	156	....	156	....	....	....
....	....	....	120	....	120	305	....	305	195	....	195
....	....	....	100	....	100	1	....	1	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	41	....	41	70	29	99	69	....	69
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	70	1	71	68	....	68	14	....	14
1	....	1	86	....	86	1,308	40	1,348	323	166	489
....	....	....	6	....	6	18	90	108	6	....	6
69	9	78	353	79	432	242	119	361	512	57	569
....	....	....	12	....	12	21	....	21	....	....	....
....	....	....	....	....	....	122	....	122	....	....	....
....	....	....	23	....	23	56	....	56	136	....	136
....	....	....	....	....	....	....	....	....	100	....	100
....	....	....	19	98	117	23	....	23	35	36	71
....	....	....	769	71	840	630	209	839	372	....	372
....	....	....	....	....	....	112	....	112	....	....	....
....	....	....	541	....	541	233	92	325	239	95	334
....	....	....	146	1	147	240	34	274	218	11	229
....	....	....	130	25	155	65	....	65	117	5	122
....	71	71	291	98	389	1,475	273	1,748	152	....	152
87	....	87	40	30	70	46	25	71	140	118	258
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	319	....	319	478	....	478	585	132	717
....	....	....	1,443	134	1,577	2,532	893	3,425	2,110	257	2,367
....	....	....	152	1	153	74	....	74	644	293	937
....	....	....	35	....	35	8	....	8	....	....	....
....	....	....	184	....	184	....	13	13	25	....	25
....	....	....	17	....	17	48	....	48	53	....	53
55	....	55	249	....	249	96	....	96	134	168	302
....	....	....	185	....	185	8	....	8	....	5	5

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	632	25,737	952	26,689	27,321	27,957
75b	Trachoma	8	7,426	13	7,439	7,447	7,518
75c	Refractive error	127	5,878	122	6,000	6,127	6,127
75e	Iritis	245	4,242	283	4,525	4,770	4,770
75f	Keratitis	232	4,642	243	4,885	5,117	5,134
75g	Choroiditis	55	759	....	759	814	814
75h	Retinitis	215	1,646	287	1,933	2,148	2,148
75i	The eyes and annexa (other diseases of)	431	15,360	895	16,255	16,686	16,886
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	143	4,636	50	4,686	4,829	4,829
76b	Otitis media	1,215	70,755	1,174	71,929	73,144	73,175
76c	Ears, other diseases of	30	3,451	67	3,518	3,548	3,659
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	87	2,211	72	2,283	2,370	2,370
86b	Deviation of nasal septum or spurs	951	11,811	61	11,872	12,823	12,829
86c	Sinusitis	985	9,953	290	10,243	11,228	11,230
86d	Nasal fossæ, other diseases of	1,089	28,166	575	28,741	29,830	30,595
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	1,626	28,432	509	28,941	30,567	30,617
100	Pharynx, diseases of	1,949	38,244	1,047	39,291	41,240	41,357
100a	Tonsils, diseases of	6,473	235,281	4,586	239,867	246,340	246,579
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	14	836	13	849	863	863
78	Endocarditis, acute	[illegible]	1,265	15	1,280	1,289	1,289
79	Valvular heart diseases	609	38,819	1,202	40,021	40,630	40,661
79a	Heart, other organic diseases of	622	20,520	944	21,464	22,086	22,186
80	Angina pectoris	112	744	56	800	912	912
81a	Aneurism	....	65	8	73	73	73
81	Arteries, other diseases of	790	1,361	1	1,362	2,152	2,172
82	Embolism and thrombosis	341	765	....	765	1,106	1,106
83a	Hemorrhoids	1,751	40,546	2,797	43,343	45,094	45,212
83b	Varicocele	177	28,459	357	28,816	28,993	28,995
83	Veins, other diseases of	322	18,776	300	19,076	19,398	19,438
84a	Status lymphaticus	....	2	15	17	17	17
84	Lymphatic system, other diseases of	1,009	45,632	1,638	47,270	48,279	49,074
85a	Cardiac arrhythmias	21	735	....	735	756	756
85b	Cardiac murmur, not organic	15	129	....	129	144	144
85c	Cardiac disorders, functional	29	1,198	49	1,247	1,276	1,276
85d	Hemorrhage	87	1,504	63	1,567	1,654	1,680
85	Circulatory system, other diseases of	179	6,600	295	6,895	7,074	7,087
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	8,904	276,509	8,391	284,900	293,804	295,926
91	Broncho-pneumonia	780	27,432	1,667	29,099	29,879	29,939
92	Pneumonia, lobar	2,386	147,108	12,605	159,713	162,099	162,641
92a	Pneumonia, interstitial	....	19	....	19	19	19
92b	Pneumonia, unclassified	20	652	23	675	695	695
93	Pleurisy	1,177	39,178	1,599	40,777	41,954	42,177
95	Gangrene of lung	....	78	36	114	114	114
98	Abscess of lung	....	189	....	189	189	189
96, 97	Respiratory systems, other diseases of	501	16,916	691	17,607	18,108	18,299

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
9,526	7,161	5,830	22,517	215	29	449	693	23,210
1,868	3,815	1,518	7,201	8	4		12	7,213
2,088	2,170	446	4,704	98	6		104	4,808
1,290	1,385	631	3,306	46	2	190	238	3,544
1,287	2,020	955	4,262	69	55	93	217	4,479
319	360	11	690					690
690	368	118	1,176	258		29	287	1,463
5,675	5,639	1,614	12,928	578	32	166	776	13,704
1,687	2,209	372	4,268	24		1	25	4,293
23,537	30,694	9,721	63,952	318	109	450	877	64,829
1,121	1,104	486	2,711	33	2	7	42	2,753
1,026	611	51	1,688	29	4		33	1,721
4,823	4,030	1,437	10,290	45			45	10,335
4,240	3,132	1,412	8,784	84	33	124	241	9,025
11,740	7,919	5,543	25,202	188	60	212	460	25,662
10,964	8,049	6,259	25,272	121	7	209	337	25,609
14,385	11,475	7,642	33,502	483	44	274	801	34,303
101,625	75,125	36,971	213,721	1,710	462	1,356	3,528	217,249
475	104	180	759			13	13	772
638	381	224	1,243		5	7	12	1,255
14,181	13,964	7,314	35,459	474	77	497	1,048	36,507
9,059	7,035	2,643	18,737	301	46	288	635	19,372
529	131	63	723		5	51	56	779
25	1	30	56					56
595	507	94	1,196			1	1	1,197
406	152	165	723					723
14,281	12,590	6,100	32,971	818	170	1,145	2,133	35,104
9,992	11,241	3,976	25,209	124	24	131	279	25,488
7,352	5,632	2,821	15,805	40	33	109	182	15,987
2			2			15	15	17
19,896	12,306	2,865	35,067	761	165	189	1,115	36,182
363	255	51	669					669
69	12	16	97					97
496	243	222	961			30	30	991
558	583	309	1,450	24	5	30	59	1,509
2,999	1,837	1,189	6,025	87	76	71	234	6,259
87,034	88,213	48,771	224,018	2,050	504	2,627	5,181	229,199
6,903	12,666	3,341	22,910	338	42	904	1,284	24,194
43,882	68,701	25,988	138,571	2,602	1,093	7,532	11,227	149,798
19			19					19
112	292	57	461	1		22	23	484
16,442	12,086	5,298	33,826	563	48	663	1,274	35,100
47	31		78					78
[illegible]	127	27	177					177
5,749	4,896	3,327	13,972	103	75	277	455	14,427

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	1,189	308	23	1,520	51	1,571
75b	Trachoma	26	60		86		86
75c	Refractive errors	319	151	1	471		471
75e	Iritis	184	212		396		396
75f	Keratitis	152	97	16	265		265
75g	Choroiditis						
75h	Retinitis	19	5		24		24
75i	The eyes and annexa (other diseases of)	703	164	16	883	21	904
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	179	118		297		297
76b	Otitis media	2,669	1,396	77	4,142	49	4,191
76c	Ears, other diseases of	163	5		168		168
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	166	77		243		243
86b	Deviation of nasal septum or spurs	196	22		218		218
86c	Sinusitis	442	209	5	656	10	666
86d	Nasal fossæ, other diseases of	638	585	123	1,346		1,346
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	1,319	977	137	2,433	97	2,530
100	Pharynx, diseases of	1,549	929	64	2,542	3	2,545
100a	Tonsils, diseases of	7,184	3,153	179	10,516	185	10,701
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis		17		17		17
78	Endocarditis, acute	3			3		3
79	Valvular heart diseases	987	270	25	1,282	37	1,319
79a	Heart, other organic diseases of	504	250		754	159	913
80	Angina pectoris	13	5		18		18
81a	Aneurysm	2			2		2
81	Arteries, other diseases of	82	5		87		87
82	Embolism and thrombosis	34			34		34
83a	Hemorrhoids	3,127	1,180	288	4,595	114	4,709
83b	Varicocele	634	434	43	1,111	18	1,129
83	Veins, other diseases of	1,544	155	32	1,731	47	1,778
84a	Status lymphaticus						
84	Lymphatic system, other diseases of	2,569	370	38	2,977	18	2,995
85a	Cardiac arrhythmias						
85b	Cardiac murmur, not organic						
85c	Cardiac disorders, functional	7	44		51		51
85d	Hemorrhage	7	12		19	1	20
85	Circulatory system, other diseases of	87	104		191	2	193
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	19,254	15,391	876	35,521	1,891	37,412
91	Broncho-pneumonia	2,177	1,249	120	3,546	182	3,728
92	Pneumonia, lobar	3,186	1,570	90	4,846	416	5,262
92a	Pneumonia, interstitial						
92b	Pneumonia, unclassified	88	61		149		149
93	Pleurisy	2,399	1,090	36	3,525	156	3,681
95	Gangrene of lung						
98	Abscess of lung		12		12		12
96, 97	Respiratory systems, other diseases of	529	281	22	832	2	834

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
215	7	222	645	27	672	239	99	338	230	75	305
....	....	....	....	....	....	102	1	103	26	....	26
....	....	....	50	....	50	251	18	269	209	....	209
51	....	51	151	....	151	117	....	117	39	45	84
....	....	....	42	....	42	14	9	23	10	17	27
....	....	....	48	....	48	....	....	....	20	....	20
....	....	....	15	....	15	....	....	....	283	....	283
46	....	46	580	6	586	472	58	530	213	34	247
....	....	....	71	....	71	....	....	....	....	25	25
207	....	207	1,052	20	1,072	342	147	489	294	81	375
....	4	4	38	....	38	351	20	371	135	1	136
....	....	....	43	....	43	....	39	39	237	....	237
....	....	....	76	....	76	243	2	245	241	14	255
19	....	19	196	8	204	31	....	31	87	31	118
99	3	102	542	17	559	406	15	421	393	80	473
30	....	30	562	46	608	22	9	31	65	20	85
....	....	....	773	46	819	468	35	503	781	162	943
520	106	626	3,684	123	3,807	1,767	265	2,032	3,331	379	3,710
....	....	....	48	....	48	12	....	12	....	....	....
....	....	....	19	3	22	....	....	....	....	....	....
127	....	127	451	....	451	527	51	578	778	66	844
....	....	....	432	2	434	140	147	287	246	1	247
....	....	....	3	....	3	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	7	8	15
....	....	....	55	....	55	3	....	3	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
63	40	103	901	78	979	749	280	1,029	598	152	750
16	....	16	187	11	198	786	34	820	341	15	356
24	....	24	147	16	163	510	....	510	295	55	350
....	....	....	....	....	....	....	....	....	....	....	....
241	78	319	512	44	556	1,660	111	1,771	1,670	272	1,942
32	....	32	6	....	6	4	....	4	13	....	13
....	....	....	2	....	2	....	....	....	....	....	....
....	....	....	3	....	3	82	1	83	37	18	55
....	....	....	17	1	18	9	2	11	6	....	6
2	....	2	66	....	66	172	59	231	144	....	144
440	152	592	7,451	412	7,863	3,229	263	3,492	3,229	492	3,721
20	3	23	772	12	784	1	13	14	145	173	318
427	61	488	2,245	574	2,819	162	47	209	775	280	1,055
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	42	....	42	....	....	....	....	....	....
65	22	87	843	95	938	395	12	407	333	40	373
....	....	....	....	....	....	....	....	....	....	36	36
....	....	....	....	....	....	....	....	....	....	....	....
22	....	22	1,095	50	1,145	198	149	347	761	35	796

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of.	905	15,707	472	16,179	17,084	17,208
101	Esophagus, diseases of	....	35	6	41	41	41
102	Ulcer of the stomach	721	7,455	94	7,549	8,270	8,319
103	Stomach, diseases of (ulcer and cancer excepted)	1,380	36,870	1,318	38,188	39,568	39,910
106	Ankylostomiasis	28	4,182	5	4,187	4,215	4,541
107	Trichinosis	....	155	....	155	155	155
107a	Intestinal parasites, others	35	2,705	67	2,772	2,807	2,972
108	Appendicitis	4,659	114,820	4,370	119,190	123,849	124,000
109	Hernia	3,433	111,634	2,196	113,830	117,263	117,610
109a	Intestinal obstruction	72	1,719	106	1,825	1,897	1,897
105, 110	Intestines, other diseases of	6,566	126,096	3,647	129,743	136,309	138,128
112	Hydatid tumor of liver	....	4	....	4	4	4
113	Cirrhosis of the liver	33	885	....	885	918	918
114	Cholelithiasis	257	1,055	....	1,055	1,312	1,312
115	Cholecystitis	626	7,140	331	7,471	8,097	8,145
115a	Liver, other diseases of	362	10,435	73	10,508	10,870	11,323
117	Peritonitis, acute diffuse	....	256	2	258	258	258
117a	Peritonitis, acute local	....	160	....	160	160	160
117b	Peritonitis, chronic	....	140	2	142	142	146
117c	Peritoneal adhesions	106	3,534	106	3,640	3,746	3,746
118	Other diseases of the digestive system	200	1,293	33	1,326	1,526	1,538
118a	Pancreatitis	33	93	....	93	126	126
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	181	4,743	283	5,026	5,207	5,250
120	Nephritis, chronic (Bright's disease)	1,224	11,206	435	11,641	12,865	12,903
122	Kidney and annexa, other diseases of	559	8,349	463	8,812	9,371	9,492
123	Calculi, of urinary passages	566	3,979	73	4,052	4,618	4,626
124	Bladder, diseases of	199	27,672	1,716	29,388	29,587	29,646
125	Urethra, diseases of	161	4,248	202	4,450	4,611	4,616
126	Prostate, diseases of	91	1,582	4	1,586	1,677	1,677
127	Male genital organs, diseases of (nonvenereal)	256	27,317	1,015	28,332	28,588	28,928
	XV. SKIN AND CELLULAR TISSUE, DISEASE OF.						
142	Gangrene	204	348	....	348	552	552
143	Furuncle	747	32,463	669	33,132	33,879	35,078
144	Acute abscess	796	32,917	744	33,661	34,457	35,030
144a	Cellulitis	667	27,020	333	27,353	28,020	28,595
145	Skin and annexa, other diseases of	1,765	98,133	2,769	100,902	102,667	104,478
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	202	6,166	282	6,448	6,650	6,650
146a	Bones, other diseases of (tuberculosis excepted)	134	9,762	312	10,074	10,208	10,236
147	Joint, diseases of (rehematism and tuberculosis excepted)	428	13,678	335	14,013	14,441	14,571
149	Pes planus	213	68,862	1,702	70,564	70,777	70,817
149a	Organs of locomotion, other diseases of	1,180	61,681	1,375	63,056	64,236	64,572
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	450	48,220	2,279	50,499	50,949	51,082
189	Not specified or ill-defined diseases	3,047	127,604	6,446	134,050	137,097	138,570
	Total for diseases	112,217	5,047,939	192,915	5,240,854	5,353,071	5,396,209

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
6,323	4,656	2,290	13,269	244	1	105	350	13,619
14	5	15	34					34
2,355	2,192	1,546	6,093	64		14	78	6,171
14,430	11,272	5,485	31,187	351	79	247	677	31,864
2,044	992	608	3,644					3,644
902	767	253	1,922	47		4	51	1,973
43,287	40,525	13,063	96,875	1,394	113	469	1,976	98,851
39,424	41,518	17,585	98,527	806	127	746	1,679	100,206
572	735	174	1,481	69			69	1,550
50,145	41,520	12,218	103,883	1,334	346	387	2,067	105,950
615	82	51	748					748
598	174	169	941					941
3,468	2,138	737	6,343	17		12	29	6,372
3,919	2,784	1,004	7,707	9		30	39	7,746
26	63	23	112					112
70	49	31	150					150
67	1	72	140		2		2	142
1,372	1,246	446	3,064					3,064
596	315	251	1,162	22	11		33	1,195
2			2					2
1,793	1,379	709	3,881	57		36	93	3,974
4,567	2,713	1,355	8,635	192		102	294	8,929
2,683	3,289	1,004	6,976	101	17	17	135	7,111
1,630	1,101	520	3,251	27			27	3,278
10,429	9,581	4,162	24,172	505	42	233	780	24,952
1,432	1,211	803	3,446	33	12	91	136	3,582
508	616	160	1,284		4		4	1,288
10,941	8,485	3,966	23,392	389	79	196	664	24,056
254	47	47	348					348
15,051	8,535	4,095	27,681	102	[illegible]	55	177	27,858
13,029	9,435	4,683	27,147	190	93	194	477	27,624
11,729	7,810	3,176	22,715	[illegible]	11	45	152	22,867
34,491	32,216	14,373	81,080	657	234	512	1,403	82,483
2,657	2,028	822	5,507	60	31	122	213	5,720
2,724	3,199	1,931	7,854	49	44	150	243	8,097
4,685	5,201	1,900	11,786	116	38	104	258	12,044
25,556	23,098	9,674	58,328	659	278	675	1,612	59,940
21,969	23,221	9,565	54,755	537	116	327	980	55,735
20,306	16,362	7,112	43,780	1,120	369	250	1,739	45,519
48,143	35,088	27,163	110,394	1,831	495	2,463	4,789	115,183
1,807,126	1,730,093	854,370	4,391,589	55,341	15,870	65,812	137,023	4,528,612

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength....................	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of....	1,007	229	3	1,239	8	1,247
101	Esophagus, diseases of..........	....	....	....	....	....	....
102	Ulcer of the stomach.............	525	18	43	586	....	586
103	Stomach, diseases of (ulcer and cancer excepted)...............	1,417	570	46	2,033	31	2,064
106	Ankylostomiasis..................	66	6	....	72	....	72
107	Trichinosis......................	....	....	....	....	....	....
107a	Intestinal parasites, others.......	154	77	....	231	....	231
108	Appendicitis.....................	4,252	1,569	255	6,076	53	6,129
109	Hernia...........................	5,134	2,105	115	7,354	48	7,402
109a	Intestinal obstruction............	132	17	....	149	4	153
105, 110	Intestines, other diseases of.......	5,786	1,648	154	7,588	154	7,742
112	Hydatid tumor of liver...........	....	....	....	....	....	....
113	Cirrhosis of the liver............	....	....	....	....	....	....
114	Cholelithiasis....................	13	2	....	15	....	15
115	Cholecystitis.....................	143	34	1	178	....	178
115a	Liver, other diseases of..........	451	130	30	611	....	611
117	Peritonitis, acute diffuse.........	....	....	....	....	2	2
117a	Peritonitis, acute local...........	10	....	....	10	....	10
117b	Peritonitis, chronic...............	....	....	....	....	....	....
117c	Peritoneal adhesions.............	174	6	....	180	....	180
118	Other diseases of the digestive system........................	83	16	2	101	....	101
118a	Pancreatitis......................	....	....	....	....	....	....
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute..................	293	60	....	353	....	353
120	Nephritis, chronic (Bright's disease)........................	150	145	....	295	37	332
122	Kidney and annexa, other diseases of.......................	299	61	....	360	....	360
123	Calculi, of urinary passages.......	261	51	....	312	....	312
124	Bladder, diseases of..............	463	391	....	854	19	873
125	Urethra, diseases of..............	169	22	....	191	23	214
126	Prostate, diseases of.............	61	87	....	148	....	148
127	Male genital organs, diseases of (nonvenereal).................	1,191	602	17	1,810	52	1,862
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene........................	....	....	....	....	....	....
143	Furuncle.........................	1,167	346	3	1,516	30	1,546
144	Acute abscess....................	2,782	392	5	3,179	51	3,230
144a	Cellulitis........................	1,186	390	13	1,589	....	1,589
145	Skin and annexa, other diseases of...........................	5,398	1,363	114	6,875	45	6,920
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis.....................	137	38	....	175	9	184
146a	Bones, other diseases of (tuberculosis excepted)...............	593	30	....	623	....	623
147	Joints, diseases of (rheumatism and tuberculosis excepted).....	704	163	....	867	....	867
149	Pes planus.......................	2,367	1,341	8	3,716	2	3,718
149a	Organs of locomotion, other diseases of......................	1,880	955	93	2,928	28	2,956
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations........	1,080	439	16	1,535	81	1,616
189	Not specified or ill-defined diseases..........................	5,759	2,069	199	8,027	180	8,207
	Total for diseases...........	196,582	89,882	5,798	292,262	9,858	302,120

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
			370	5	375	428	40	468	221	69	290
										6	6
			108	16	124	309		309	12		12
198	11	209	925	34	959	1,350	303	1,653	455	262	717
			59		59	271	5	276			
155		155									
			84		84	235	8	243	164	8	172
165	50	215	1,860	93	1,953	3,530	1,302	4,832	4,421	896	5,317
2		2	2,415	10	2,425	1,029	331	1,360	1,195	128	1,323
			2		2	2		2		33	33
179	17	196	2,897	85	2,982	5,726	556	6,282	3,179	768	3,947
			3		3						
6		6	123		123	240	54	294	113	248	361
			326	19	345	986		986	353	15	368
						12		12			
			75		75	81	106	187	57		57
21		21	4		4				3		3
						91		91			
14		14	252		252	41	190	231			
			258	32	290	446	35	481	382	37	419
26		26	96	10	106	461	204	665	43	114	157
			119		119	150	42	192	35	4	39
76		76	338	156	494	578	651	1,229	1,313	110	1,423
58		58	208	13	221	110	4	114	206	26	232
			4		4	22		22	93		93
	53	53	795	18	813	712	51	763	385	177	562
82		82	582	1	583	742	414	1,156	1,196	47	1,243
17	20	37	716	15	731	1,142	135	1,277	204	46	250
114		114	260	22	282	714	8	722	935	151	1,086
72	30	102	1,888	24	1,912	3,102	896	3,998	2,249	371	2,620
						36		36	158	60	218
			488	29	517	79		79	602	40	642
			288	61	349	154		154	335	16	351
14	6	20	2,213	28	2,241	1,325	10	1,335	1,580	44	1,624
18	7	25	715	14	729	1,228	181	1,409	864	165	1,029
			642	31	673	563	275	838	701	153	854
292	35	327	2,548	309	2,857	2,926	549	3,475	2,459	584	3,043
5,726	1,838	7,564	101,998	6,939	108,937	107,606	21,402	129,008	78,626	15,855	94,481

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	19,210	611,855	22,099	633,954	653,164	658,468
03	Bites	....	956	31	987	987	1,017
04	Burns	169	10,102	226	10,328	10,497	10,570
05, 06	Burns, chemical and X-ray	15	2,097	37	2,134	2,149	2,164
09	Compression (brain)	....	240	....	240	240	240
10	Concussion (brain)	300	5,014	67	5,081	5,381	5,469
12	Contusion	149	9,926	42	9,968	10,117	10,145
14	Crushing	96	8,350	111	8,461	8,557	8,557
17–20	Dermatitis from traumatism	375	8,600	109	8,709	9,084	9,139
21	Dislocation of joint	598	15,549	791	16,340	16,938	17,042
62	Dislocation, articular, cartilage of knee	125	3,648	....	3,648	3,773	3,773
28	Epiphyseal separation	....	303	....	303	303	439
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatism	16	2,201	112	2,313	2,329	2,587
34	Foreign bodies	18	1,423	76	1,499	1,517	1,525
36	Fracture, simple	6,052	130,944	3,363	134,307	140,359	141,071
35	Fracture, compound	945	14,157	187	14,344	15,289	15,301
38–48	Fracture, faulty union	89	4,842	29	4,871	4,960	5,028
ox	Fracture near joint with dislocation	....	401	....	401	401	401
37	Fracture, comminuted	391	8,507	327	8,834	9,225	9,225
50	Gases deleterious, absorption of	139	123	....	123	262	262
51	Gunshot wound	412	17,798	695	18,493	18,905	19,044
52–56	Hemorhage and results	6	731	22	753	759	775
59	Homicides	1	81	4	85	86	86
66	Poisoning by food	116	1,622	11	1,633	1,749	1,750
67	Poisoning, other acute	14	849	11	860	874	874
96	Secondary result of injury	648	52,851	3,143	55,994	56,642	56,740
73	Sprain of joint	2,853	80,544	3,094	83,638	86,491	87,078
75	Strain	388	11,133	484	11,617	12,005	12,054
79	Suicide	2	8	....	8	10	10
81	Synovitis, traumatic, cause undetermined	566	10,452	457	10,909	11,475	11,529
85	Venomous bites and stings	76	1,378	55	1,433	1,509	1,560
93	Wounds, multiple	62	1,096	61	1,157	1,219	1,225
94	Wounds, penetrating	119	2,894	271	3,165	3,284	3,284
92	Wounds, extensive	35	26	....	26	61	61
95	Wounds, perforating	198	21,424	973	22,397	22,595	22,672
86–91	Wounds, others	3,075	139,246	5,904	145,150	148,225	150,258
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	1,162	42,147	1,401	43,548	44,710	45,316
80	Sunstroke	....	192	5	197	197	197
	Total for diseases	112,217	5,047,939	192,915	5,240,854	5,353,071	5,396,209
	Total for external causes	19,210	611,855	22,099	633,954	653,164	658,468
	Grand total	131,427	5,659,794	215,014	5,874,808	6,006,235	6,054,677

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
267,220	188,605	65,981	521,806	10,585	1,416	2,836	14,837	536,643
384	355	31	770	....	....	....	....	770
4,753	3,207	780	8,740	114	13	75	202	8,942
1,001	548	220	1,769	....	....	32	32	1,801
138	94	....	232	....	....	....	....	232
2,251	1,533	319	4,103	10	....	3	13	4,116
2,390	3,739	2,799	8,928	16	11	....	27	8,955
3,671	3,145	671	7,487	38	....	35	73	7,560
3,290	2,994	1,473	7,757	60	35	....	95	7,852
7,045	4,538	1,676	13,259	596	12	1	609	13,868
1,743	907	273	2,923	....	....	....	....	2,923
166	10	57	233	....	....	....	....	233
1,058	591	135	1,784	95	....	2	97	1,881
621	324	196	1,141	30	....	25	55	1,196
58,453	37,911	9,855	106,219	1,535	182	247	1,964	108,183
6,541	3,923	620	11,084	134	52	....	186	11,270
3,248	1,129	143	4,520	20	9	....	29	4,549
161	43	58	262	....	....	....	....	262
3,842	2,052	423	6,317	295	....	1	296	6,613
29	14	1	44	....	....	....	....	44
6,818	8,080	700	15,598	379	140	5	524	16,122
339	252	35	626	....	....	....	....	626
70	10	....	80	4	....	....	4	84
616	600	78	1,294	11	....	....	11	1,305
384	174	76	634	5	....	....	5	639
18,947	19,613	11,325	49,885	1,456	155	1,184	2,795	52,680
34,015	23,012	12,815	69,842	1,380	155	298	1,833	71,675
4,533	3,172	1,431	9,136	229	3	17	249	9,385
4,839	3,436	1,168	9,443	313	20	27	360	9,803
596	416	16	1,028	28	....	....	28	1,056
644	234	6	884	2	9	....	11	895
1,111	844	149	2,104	84	88	....	172	2,276
22	....	4	26	....	....	....	....	[illegible]
9,187	8,591	300	18,078	412	110	102	624	18,702
65,689	40,079	12,681	118,449	2,855	347	392	3,594	122,043
18,544	12,924	5,467	36,935	482	75	390	947	37,882
81	111	....	192	2	....	....	2	194
1,807,126	1,730,093	854,370	4,391,589	55,341	15,870	65,812	137,023	4,528,612
267,220	188,605	65,981	521.806	10,585	1,416	2,836	14,837	536,643
2,074,346	1,918,698	920,351	4,913,395	65,926	17,286	68,648	151,860	5,065,255

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	31,899	6,953	508	39,360	979	40,339
03	Bites	17	17	....	34	....	34
04	Burns	491	275	....	766	8	774
05, 06	Burns, chemical and X-ray	64	26	....	90	....	90
09	Compression (brain)	....	8	....	8	....	8
10	Concussion (brain)	385	41	....	426	....	426
12	Contusion	572	240	9	821	....	821
14	Crushing	193	113	....	306	9	315
17-20	Dermatitis from traumatism	302	2	....	304	....	304
21	Dislocation of joint	687	163	39	889	3	892
62	Dislocation, articular, cartilage of knee	252	30	....	282	....	282
28	Epiphyseal separation	5	....	....	5	....	5
08, 11, 13, 32, 33, 68, 69.	Eye and annexa, traumatisms	122	31	....	153	....	153
34	Foreign bodies	126	....	....	126	....	126
36	Fracture, simple	6,937	1,371	50	8,358	18	8,376
35	Fracture, compound	1,019	115	....	1,134	1	1,135
38-48	Fracture, faulty union	18	10	....	28	....	28
ox	Fracture near joint with dislocation	99	40	....	139	....	139
37	Fracture, comminuted	951	26	....	977	....	977
50	Gases, deleterious, absorption of	4	1	27	32	....	32
51	Gunshot wound	1,461	98	....	1,559	1	1,560
52-56	Hemorrhage and results	45	....	....	45	....	45
59	Homicides	1	....	....	1	....	1
66	Poisoning by food	48	24	....	72	....	72
67	Poisoning, other acute	9	2	....	11	....	11
96	Secondary result of injury	854	284	39	1,177	52	1,229
73	Sprain of joint	3,509	1,046	117	4,672	88	4,760
75	Strain	723	254	26	1,003	53	1,056
79	Suicide	1	....	....	1	....	1
81	Synovitis, traumatic, cause undermined	330	272	22	624	....	624
85	Venomous bites and stings	40	63	....	103	....	103
93	Wounds, multiple	185	1	....	186	....	186
94	Wounds, penetrating	679	9	....	688	2	690
92	Wounds, extensive	....	....	....	....	....	....
95	Wounds, perforating	2,026	219	....	2,245	9	2,254
86-91	Wounds, others	7,290	1,555	136	8,981	671	9,652
00-02, 07, 15, 16. 24-27, 29-31. 49, 57, 58, 60, 61, 63-65, 70-72, 74, 76-78, 82-84, 97-99	Traumatisms, others	2,454	617	43	3,114	64	3,178
80	Sunstroke	....	....	....	....	....	....
	Total for diseases	196,582	89,882	5,798	292,262	9,858	302,120
	Total for external causes	31,899	6,953	508	39,360	979	40,339
	Grand total	228,481	96,835	6,306	331,622	10,837	342,459

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
533	62	595	7,320	282	7,602	13,538	3,863	17,401	17,010	2,076	19,086
2	14	16	73	....	73	65	17	82	10	....	10
....	....	....	149	8	157	120	4	124	188	4	192
....	....	....	39	5	44	84	....	84	43	....	43
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	32	....	32	95	38	133	165	16	181
8	....	8	79	....	79	54	14	68	13	1	14
....	....	....	87	29	116	225	....	225	141	....	141
....	....	....	61	5	66	113	....	113	245	9	254
....	....	....	217	....	217	307	162	469	476	17	493
....	....	....	16	....	16	170	....	170	62	....	62
....	....	....	....	....	....	....	....	....	39	....	39
58	....	58	23	1	24	133	2	135	19	12	31
....	....	....	10	....	10	13	6	19	89	15	104
71	....	71	1,500	....	1,500	3,850	563	4,413	6,618	818	7,436
....	....	....	164	....	164	568	....	568	1,037	....	1,037
....	....	....	1	....	1	182	....	182	10	....	10
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	61	....	61	689	31	720	217	....	217
2	....	2	45	....	45	....	....	....	....	....	....
4	....	4	77	1	78	90	159	249	238	10	248
....	....	....	9	....	9	8	....	8	31	22	53
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	13	....	13	26	....	26	170	....	170
....	....	....	82	....	82	94	....	94	15	6	21
22	....	22	440	25	465	361	131	492	226	140	366
65	14	79	1,138	75	1,213	1,375	753	2,128	2,167	331	2,498
....	....	....	248	4	252	252	143	395	339	35	374
....	....	....	2	....	2	....	....	....	5	....	5
....	....	....	124	....	124	44	97	141	113	....	113
....	....	....	9	....	9	86	23	109	19	4	23
....	....	....	6	5	11	9	45	54	....	....	....
....	....	....	....	....	....	61	38	99	....	59	59
....	....	....	....	....	....	....	....	....	....	....	....
117	....	117	123	....	123	371	223	594	158	117	275
152	34	186	2,088	91	2,179	3,259	1,099	4,358	3,758	415	4,173
32	....	32	404	33	437	834	312	1,146	399	45	444
....	....	....	....	....	....	....	3	3	....	....	....
5,726	1,838	7,564	101,998	6,939	108,937	107,606	21,402	129,008	78,626	15,855	94,481
533	62	595	7,320	282	7,602	13,538	3,863	17,401	17,010	2,076	19,086
6,259	1,900	8,159	109,318	7,221	116,539	121,144	25,265	146,409	95,636	17,931	113,567

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	19,210	611,855	22,099	633,954	653,164	658,468
01–19	Total military agents	1,663	90,566	4,644	95,210	96,873	98,042
01	Bayonet	31	1,473	72	1,545	1,576	1,713
02	Club	176	4,532	489	5,021	5,197	5,370
03	Explosion of mine	....	20	....	20	20	20
04	Gas, asphxiative	....	14	....	14	14	14
05	Gas, poisonous	50	37	....	37	87	87
06	Flaming fluid	33	700	9	709	742	750
07	Hand grenade	62	1,132	....	1,132	1,194	1,194
08	Knife	41	5,630	407	6,037	6,078	6,202
09	Pistol ball	443	18,779	1,274	20,053	20,496	20,573
10	Rifle ball	115	26,735	1,214	27,949	28,064	28,164
11	Saber	....	14	....	14	14	14
12	Shell	78	1,275	....	1,275	1,353	1,353
13	Shrapnel	112	677	....	677	789	789
14	Cutting or piercing instruments	463	29,176	1,179	30,355	30,813	31,368
15	Secondary missile	59	274	....	274	333	333
16–19	Others, military agents	....	98	....	98	98	98
20–29	Total by sinking ships	27	....	....	....	27	27
21	Sinking ships by storm	21	....	....	....	21	21
22	Sinking ships by submarine	6	....	....	....	6	6
30–39	Total by air machines	518	1,854	....	1,854	2,372	2,372
30	Aeroplane	518	1,782	....	1,782	2,300	2,300
31	Balloon	....	72	....	72	72	72
40–49	Total by vehicles and animals	3,130	97,456	2,987	100,443	103,573	103,758
40	Automobile	1,174	26,636	519	27,155	28,329	28,397
41	Motor cycle	654	10,897	51	10,948	11,602	11,602
42	Railroad accident	273	13,966	443	14,409	14,682	14,719
43	Street-car accident	43	3,764	89	3,853	3,896	3,896
44	Others by vehicles	14	6,227	239	6,466	6,480	6,487
45	Animals	972	35,966	1,646	37,612	38,584	38,657
50–59	Total by industrial agents	7,349	183,755	6,594	190,349	197,698	199,457
50	Conflagrations	....	125	....	125	125	125
51	Crushing	1,796	41,820	2,028	43,848	45,644	45,993
52	Electricity	5	292	....	292	297	297
53	Fall	5,283	132,153	4,211	136,364	141,647	142,853
54	Falling timbers	92	1,362	24	1,386	1,478	1,487
55	Fire	75	2,816	113	2,929	3,004	3,029
56	Splinters	67	2,221	23	2,244	2,311	2,321
57	Machinery	31	2,966	195	3,161	3,192	3,352
60–69	Total for extreme temperatures	14	1,381	19	1,400	1,414	1,416
60	Excessive cold	....	117	....	117	117	119
61	Heat	14	1,264	19	1,283	1,297	1,297

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
267,220	188,605	65,981	521,806	10,585	1,416	2,836	14,837	536,643
35,980	32,893	6,798	75,671	1,989	506	738	3,233	78,904
682	418	48	1,148	11	37	....	48	1,196
1,581	1,456	297	3,334	142	16	12	170	3,504
20	....	....	20	....	....	....	....	20
7	6	....	13	....	....	....	....	13
....	5	1	6	....	....	....	....	6
346	273	41	660	9	....	....	9	669
316	17	43	376	....	....	....	....	376
2,467	1,910	335	4,712	150	21	104	275	4,987
8,752	6,369	852	15,973	614	200	44	858	16,831
9,683	13,119	1,177	23,979	553	171	336	1,060	25,039
....	....	13	13	....	....	....	....	13
37	54	32	123	....	....	....	....	123
20	135	....	155	....	....	....	....	155
11,935	8,991	3,959	24,885	510	61	242	813	25,698
134	140	....	274	....	....	....	....	274
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
1,589	83	87	1,759	....	....	....	....	1,759
1,528	72	87	1,687	....	....	....	....	1,687
61	11	....	72	....	....	....	....	72
47,738	28,013	8,423	84,174	1,673	157	305	2,135	86,309
10,751	9,010	3,154	22,915	213	143	30	386	23,301
5,336	2,493	730	8,559	....	....	....	....	8,559
4,547	5,939	1,732	12,218	307	2	97	406	12,624
1,356	1,693	341	3,390	....	1	59	60	3,450
2,852	1,788	535	5,175	70	5	28	103	5,278
22,896	7,090	1,931	31,917	1,083	6	91	1,180	33,097
89,058	50,775	15,865	155,698	3,197	182	756	4,135	159,833
64	12	2	78	....	....	....	....	78
22,629	10,180	2,598	35,407	1,022	21	187	1,230	36,637
82	171	7	260	....	....	....	....	260
61,669	37,907	12,262	111,838	2,066	137	505	2,708	114,546
587	284	130	1,001	2	22	....	24	1,025
1,370	853	282	2,505	74	....	31	105	2,610
1,135	671	248	2,054	7	....	7	14	2,068
1,522	697	336	2,555	26	2	26	54	2,609
722	295	196	1,213	2	3	10	15	1,228
11	30	54	95	....	....	....	....	95
711	265	142	1,118	2	[illegible]	10	15	1,133

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
	Total	31,899	6,953	508	39,360	979	40,339
01–19	Total military agents	7,334	994	57	8,385	42	8,427
01	Bayonet	85	16		101		101
02	Club	369	38		407	2	409
03	Explosion of mine						
04	Gas, asphyxiative						
05	Gas, poisonous		2	21	23		23
06	Flaming fluid	7			7		7
07	Hand grenade	480	36		516		516
08	Knife	221	39	8	268		268
09	Pistol ball	1,524	203		1,727	11	1,738
10	Rifle ball	1,594	147		1,741		1,741
11	Saber	1			1		1
12	Shell	1,133	2		1,135		1,135
13	Shrapnel	522			522		522
14	Cutting or piercing instruments	1,356	455	28	1,839	29	1,868
15	Secondary missile						
16–19	Others, military agents	42	56		98		98
20–29	Total by sinking ships						
21	Sinking ships by storm						
22	Sinking ships by submarine						
30–39	Total by air machines	50			50		50
30	Aeroplane	50			50		50
31	Balloon						
40–49	Total by vehicles and animals	5,192	823	56	6,071	93	6,164
40	Automobile	1,157	249	15	1,421	21	1,442
41	Motorcycle	653	27	10	690	13	703
42	Railroad accident	1,227	58	12	1,297	14	1,311
43	Street-car accident	25	102		127		127
44	Others by vehicles	450	29	6	485	45	530
45	Animals	1,680	358	13	2,051		2,051
50–59	Total by industrial agents	9,412	1,973	196	11,581	491	12,072
50	Conflagrations						
51	Crushing	2,068	339	90	2,497	377	2,874
52	Electricity						
53	Fall	6,977	1,539	101	8,617	98	8,715
54	Falling timbers	110		3	113		113
55	Fire	67	53	2	122	8	130
56	Splinters	88	1		89		89
57	Machinery	102	41		143	8	151
60–69	Total for extreme temperatures	79	8		87		87
60	Excessive cold						
61	Heat	79	8		87		87

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
533	62	595	7,320	282	7,602	13,538	3,863	17,401	17,010	2,076	19,086
196	....	196	937	17	954	2,176	777	2,953	1,285	575	1,860
....	....	....	21	....	21	100	....	100	17	24	41
....	....	....	44	3	47	517	119	636	111	195	306
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	....	....	....	....	....	....
....	....	....	8	....	8	....	....	....	....	....	....
....	....	....	18	....	18	....	....	....	2	....	2
....	....	....	3	....	3	165	....	165	72	....	72
13	....	13	76	7	83	214	51	265	219	74	293
117	....	117	109	....	109	575	338	913	114	67	181
62	....	62	266	1	267	34	44	78	262	109	371
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	1	16	....	16	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
4	....	4	390	6	396	555	225	780	488	106	594
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	45	....	45	....	....	....	....	....	....
....	....	....	45	....	45	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
49	7	56	639	29	668	1,868	578	2,446	3,389	145	3,534
....	....	....	374	....	374	401	5	406	1,053	107	1,160
....	....	....	43	....	43	398	....	398	1,198	38	1,236
....	....	....	127	....	127	77	23	100	143	....	143
....	....	....	....	29	29	244	....	244	3	....	3
....	....	....	9	....	9	290	91	381	206	....	206
49	7	56	86	....	86	458	459	917	786	....	786
160	39	199	2,077	45	2,122	4,268	1,505	5,773	4,814	379	5,193
....	....	....	1	....	1	46	....	46	....	....	....
30	2	32	373	17	390	1,301	366	1,667	1,224	36	1,260
....	....	....	....	....	....	....	....	....	32	....	32
115	37	152	1,607	23	1,630	2,729	1,026	3,755	3,385	319	3,704
....	....	....	30	....	30	11	....	11	41	....	41
....	....	....	21	....	21	30	....	30	44	....	44
15	....	15	6	....	6	19	....	19	19	9	28
....	....	....	39	5	44	132	113	245	69	15	84
....	....	....	28	....	28	4	....	4	47	4	51
....	....	....	....	....	....	....	....	....	22	....	22
....	....	....	28	....	28	4	....	4	25	4	29

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers)*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
70–79	Total by natural causes	473	14,586	293	14,879	15,352	15,470
70	Landslides	....	338	28	366	366	366
71	Lightning	....	232	....	232	232	232
72	Stones	2	1,378	86	1,464	1,466	1,466
73	Strangulations	....	4	....	4	4	5
74	Falling earth	....	650	....	650	650	650
75	Jumping	418	7,027	125	7,152	7,570	7,642
76	Hot liquid	53	4,957	54	5,011	5,064	5,109
80–81	Total by chemicals and poisons	28	964	3	967	995	1,009
80	Chemicals	24	876	3	879	903	917
81	Poison	4	88	....	88	92	92
99	All others from external agents	6,008	221,293	7,559	228,852	234,860	236,917

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
6,626	4,202	1,980	12,808	168	12	8	188	12,996
151	....	....	151	28	....	....	28	179
101	107	24	232	....	....	....	....	232
449	471	113	1,033	61	....	5	66	1,099
3	1	....	4	....	....	....	....	4
365	220	9	594	....	....	....	....	594
3,308	1,871	1,379	6,558	42	....	3	45	6,603
2,249	1,532	455	4,236	37	12	....	49	4,285
306	267	97	670	....	....	....	....	670
276	227	84	587	....	....	....	....	587
30	40	13	83	....	....	....	....	83
85,201	72,077	32,535	189,813	3,550	562	1,019	5,131	194,944

TABLE No. XX.—*Total dayt lost—total noneffective—total Army (including officers,*

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISM, AS SHOWN BEFORE—continued.						
70–79	Total by natural causes	542	273	....	815	....	815
70	Landslides	....	....	....	....	....	....
71	Lightning	....	....	....	....	....	....
72	Stones	108	32	....	140	....	140
73	Strangulations	....	....	....	....	....	....
74	Falling earth	2	....	....	2	....	2
75	Jumping	137	6	....	199	....	199
76	Hot liquid	295	179	....	474	....	474
80–81	Total by chemicals and poisons	30	....	....	30	....	30
80	Chemicals	30	....	....	30	....	30
81	Poison	....	....	....	....	....	....
99	All others from external agents	9,260	2,882	199	12,341	353	12,694

American and native troops) for the year 1917, at home and abroad—Continued.

ABSOLUTE NUMBERS—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495.040	3,421,145	549,690	3,970.835	3.399,245	767.230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
4	....	4	341	31	372	177	63	240	321	11	332
....	....	....	....	....	....	....	....	....	187	....	187
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	183	20	203	....	....	....	13	....	13
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	30	....	30	24	....	24
4	....	4	105	10	115	76	59	135	40	11	51
....	....	....	53	1	54	71	4	75	57	....	57
....	....	....	119	....	119	131	....	131	4	3	7
....	....	....	117	....	117	131	....	131	1	3	4
....	....	....	2	....	2	....	....	....	3	....	3
124	16	140	3,134	160	3,294	4,914	940	5,854	7,150	959	8,109

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515	....	....	698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).					
1	Typhoid fever	....	....	....	....	....
2	Typhus fever	....	....	....	....	....
3	Relapsing fever (all)	76	....	....	....	....
4	Malarial fevers (all)	7,503	339	71	410	3,344
4a	Malarial fever, estivo-autumnal	3,781	29	15	44	840
4b	Malarial fever, mixed	7	....	....	....	....
4c	Malarial fever, quartan	60	....	....	....	....
4d	Malarial fever, tertian	3,376	262	56	318	2,438
4e	Malarial fever, undetermined	279	48	....	48	66
5	Smallpox	....	....	....	....	62
6	Measles (all)	960	760	1,199	1,959	50
6a	Measles, uncomplicated	934	760	1,199	1,959	50
6c	Measles with broncho-pneumonia	26	....	....	....	....
6d	Measles with lobar pneumonia	....	....	....	....	....
6f	Measles with other complications	....	....	....	....	....
7	Scarlet fever	46	....	....	....	....
8	Whooping cough	....	....	....	....	....
9	Diphtheria and results	....	....	....	....	15
10	Influenza (all)	1,736	508	326	834	135
14	Dysentery (all)	27	239	....	239	145
14a	Dysentery, bacillary	....	....	....	....	33
14b	Dysentery, balantidic	....	....	....	....	....
14c	Dysentery, entamœbic	27	9	....	9	71
14d	Dysentery (other protozoal)	....	....	....	....	....
14e	Dysentery, unclassified	....	230	....	230	41
15	Plague	....	....	....	....	....
17	Leprosy	....	....	....	....	89
18	Erysipelas	8	....	....	....	13
18b	Meningitis, cerebrospinal (epidemic)	20	....	....	....	81
19a	Chicken pox	....	146	....	146	481
19b	Diphtheria bacillus carrier	....	....	....	....	....
19c	German measles	71	246	682	928	15
19d	Hemoglobinuric fever (nonmalarial)	....	....	....	....	....
19e	Paratyphoid fever A	....	....	....	....	....
19f	Paratyphoid fever B	....	....	....	....	....
19g	Trench fever	....	....	....	....	....
19i	Typhoid bacillus carrier	71	....	63	63	....
19j	Typhoid vaccination	....	36	....	36	16
19k	Vaccinia	28	19	3	22	4
19l	Mumps	133	....	16	16	1,691
20	Septichæmia, general	....	....	....	....	....
20b	Pyæmia, surgical	....	....	....	....	....
21	Glanders	....	....	....	....	....
22	Anthrax	....	....	....	....	....
24	Tetanus	....	....	....	....	
25	Trench foot	....	....	....	....	....
25a	Mycoses (others)	....	....	....	....	....
26	Pellagra	....	....	....	....	....
27	Beriberi	....	....	90	90	7
47	Rhematic fever	204	33	14	47	13
11, 19, 18a, 18c, 20a	Infectious disease (others)	649	3	....	3	2,77
	II. TUBERCULOSIS (ALL).					
28	Tuberculosis of lungs	2,063	....	140	140	64
29	Miliary tuberculosis, acute	....	....	....	....	2
30–35	Tuberculosis (others)	298	24	....	24	42

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	III. VENEREAL DISEASES (ALL).					
37	Syphilis (all)	4,183	1,411	476	1,887	1,350
37a	Syphilis, hereditary	2				
37b	Syphilis, primary	608	832	196	1,028	400
37c	Syphilis, secondary	1,519	432	156	588	840
37d	Syphilis, tertiary	2,054	147	124	271	110
38a	Chancroid	4,686	120	267	387	737
38b	Gonococcus infection	6,477	737	269	1,006	3,222
	IV. GENERAL DISEASES (OTHERS).					
36	Rickets	21				
39–45	Cancer and other malignant tumors	77				
46	Benign tumors	130	4		4	311
48	Arthritis	715	8	17	25	233
48a	Gout					
49	Scurvy					
50	Diabetes mellitus	88				
51a	Diseases of the thyroid gland (goiter simple excepted)	22				
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted)					27
53a	Leukemia					
54	Anæmia	12		4	4	
55a	Purpura rheumatica					
56	Inebriety, drug addiction	35				
56a	Alcoholism	267	6		6	3
57–59	Poisoning, chronic	3				15
55, 88	General diseases (others)	483	18	48	66	131
	V. NERVOUS SYSTEM, DISEASES OF (ALL).					
61	Meningitis, simple					
62	Locomotor ataxia					
63	Diseases of the spinal cord (others)					107
64	Apoplexy					
66	Paralysis, cause not specified	253		39	39	
69	Epilepsy	232		2	2	23
72	Chorea					
73	Hysteria and results (psychoses excepted)	663	185	194	379	28
73a	Neuralgia	111	2	8	10	17
73b	Neuritis	277	141		141	31
74	Neurasthenia	1,064	24	15	39	27
60, 65, 70 73, 74a	Diseases of the nervous system (others)	182	18		18	26
	VI. MENTAL ALIENATION.					
67	General paralysis of the insane	180				
68a	Constitutional psychopathic states	242				77
68b	Dementia præcox	483				60
68c	Mental deficiency	238				70
68d	Psychasthenia	14				45
68e	Psychoneurosis	111				
56b	Psychoses (alcoholic)	70				
68f	Psychoses (nonalcoholic)	140	3	7	10	14
68	Mental alienation (others)		101		101	
75	**VII. EYES AND THEIR ANNEXA, DISEASES OF.**					
75a	Conjunctivitis	371	45	37	82	554
75b	Trachoma	11				71
75c	Refractive errors	193				
75e	Iritis	182				
75f	Keratitis	49				17
75g	Choroiditis	1				
75h	Retinitis	148				
75i	The eyes and annexa (other diseases of)	238	50	6	56	144

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
76	VIII. EAR, DISEASES OF.					
76a	Mastoiditis					
76b	Otitis media	766	4		4	27
76c	Ears, other diseases of	48	62	2	64	47
86	IX. NASAL FOSSÆ, DISEASES OF.					
86a	Adenoids					
86b	Deviation of nasal septum or spurs	743		6	6	
86c	Sinusitis	180	2		2	
86d	Nasal fossæ, other diseases of	178	489	67	556	209
	X. THROAT, DISEASES OF.					
87	Larynx, diseases of	48	9		9	41
100	Pharynx, diseases of	178	37		37	80
100a	Tonsils, diseases of	1,742	27	62	89	150
	XI. CIRCULATORY SYSTEM, DISEASES OF.					
77	Pericarditis					
78	Endocarditis, acute					
79	Valvular heart diseases	195	26	5	31	
79a	Heart, other organic diseases of	211	34		34	66
80	Angina pectoris					
81a	Aneurism					
81	Arteries, other diseases of	20				20
82	Embolism and thrombosis	8				
83a	Hemorrhoids	669	8	20	28	90
83b	Varicocele	809	2		2	
83	Veins, other diseases of	264				40
84a	Status lymphaticus					
84	Lymphatic system, other diseases of	3,505	276	186	462	333
85a	Cardiac arrhythmias	11				
85b	Cardiac murmur, not organic	30				
85c	Cardiac disorders, functional	64				
85d	Hemorrhage	3	2		2	22
85	Circulatory system, other diseases of		4		4	9
	XII. RESPIRATORY SYSTEM, DISEASES OF.					
89, 90	Bronchitis	2,621	162	329	491	1,631
91	Broncho-pneumonia	38				60
92	Pneumonia, lobar	82				542
92a	Pneumonia, interstitial					
92b	Pneumonia, unclassified					
93	Pleurisy	191	16	97	113	110
95	Gangrene of lung					
98	Abscess of lung					
96, 97	Respiratory systems, other diseases of	36	60	2	62	129
	XIII. DIGESTIVE SYSTEM, DISEASES OF.					
99	Mouth and annexa, diseases of	180	60	9	69	55
101	Esophagus, diseases of	1				
102	Ulcer of the stomach	347				[illegible]
103	Stomach, diseases of (ulcer and cancer excepted)	722	3	7	10	332
106	Ankylostomiasis	136	58	101	159	167
107	Trichinosis					
107a	Intestinal parasites, others	69	27		27	138
108	Appendicitis	1,893	78	30	108	43
109	Hernia	1,112	19	54	73	274
109a	Intestinal obstruction	85				
105, 110	Intestines, other diseases of	2,644		322	322	1,497

TABLE No. XX.—*Total days lost—total noneffective—total Army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	XIII. DIGESTIVE SYSTEM, DISEASES OF—continued.					
112	Hydatid tumer of liver	4				
113	Cirrhosis of the liver	137				
114	Cholelithiasis	96				
115	Cholecystitis	137				48
115a	Liver, other diseases of	452	336	73	409	44
117	Peritonitis, acute diffuse	132				
117a	Peritonitis, acute local					
177b	Peritonitis, chronic					4
117c	Peritoneal adhesions	77				
118	Other diseases of the digestive system	2	2		2	10
118a	Pancreatitis					
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.					
119	Nephritis, acute	202				43
120	Nephritis, chronic (Bright's disease)	1,190				38
122	Kidney and annexa, other diseases of	387				121
123	Calculi, of urinary passages	112	3	5	8	
124	Bladder, diseases of	341	55		55	4
125	Urethra, diseases of	29				5
126	Prostate, diseases of	31				
127	Male genital organs, diseases of (nonvenereal)	223	45	179	224	116
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.					
142	Gangrene					
143	Furuncle	664	80	47	127	1,072
144	Acute abscess	512	154	55	209	364
144a	Cellulitis	693	53	52	105	470
145	Skin and annexa, other diseases of	2,867	204	184	388	1,423
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.					
146	Osteomyelitis	290				
146a	Bones, other diseases of (tuberculosis excepted)	116	14	3	17	11
147	Joint, diseases of (rheumatism and tuberculosis excepted)	248	16		16	114
149	Pes planus	1,686				40
149a	Organs of locomotion, other diseases of	1,173	46	33	79	257
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.					
150	Congenital malformations	999		33	33	100
189	Not specified or ill-defined diseases	958	72	124	196	1,277
	Total for diseases	70,132	7,771	6,080	13,851	29,287
	TRAUMATISMA PRODUCED BY EXTERNAL CAUSES.					
	Total	12,288	488	475	963	4,341
[illegible]	Bites	2				30
04	Burns	139				73
05, 06	Burns, chemical and X-ray	72	12	3	15	
09	Compression (brain)					
10	Concussion (brain)	193				88
2	Contusion	23				28
14	Crushing	104				

TABLE NO. XX.—*Total days lost—total noneffective—total Army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	TRAUMATISMA PRODUCED BY EXTERNAL CAUSES—continued.					
17–20	Dermatitis from traumatism	120				55
21	Dislocation of joint	401		59	59	45
62	Dislocation, articular, cartilage of knee	195				
28	Epiphyseal separation	26		136	136	
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	31	6		6	252
34	Foreign bodies	44	3		3	5
36, 37	Fracture, simple	4,328	93		93	619
35	Fracture, compound	170				12
38–48	Fracture, faulty union	101	68		68	
ox	Fracture near joint with dislocation					
37	Fracture, comminuted	246				
50	Gases deleterious, absorption of					
51	Gunshot wound	232		8	8	131
52–56	Hemorrhage and results	12	16		16	
59	Homicides					
66	Poisoning by food	47	1		1	
67	Poisoning, other acute	13				
96	Secondary result of injury	740				98
73	Sprain of joint	1,285	94	51	145	442
75	Strain	155	1		1	48
79	Suicide					
81	Synovitis, traumatic, cause undetermined	104				54
85	Venomous bites and stings	133		4	4	47
93	Wounds, multiple	11				6
94	Wounds, penetrating	41				
92	Wounds, extensive					
95	Wounds, perforating	332	13	44	57	20
86–91	Wounds, others	2,559	159	144	303	1,730
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	429	22	26	48	558
80	Sunstroke					
	Total for diseases	70,132	7,771	6,080	13,851	29,287
	Total for external causes	12,288	488	475	963	4,341
	Grand total	82,420	8,259	6,555	14,814	33,628
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.					
	Total	12,288	488	475	963	4,341
01–19	Total military agents	1,916	85	79	164	1,005
01	Bayonet	86	11		11	126
02	Club	119	11		11	162
03	Explosion of mine					
04	Gas, asphyxiative					
05	Gas, poisonous					
06	Flaming fluid	13				8

Table No. XX.—*Total days lost—total noneffective—total Army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

ABSOLUTE NUMBERS—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.					
07	Hand grenade					
08	Knife	128	9	4	13	111
09	Pistol ball	164		1	1	76
10	Rifle ball	391	13	51	64	36
11	Saber					
12	Shell					
13	Shrapnel					
14	Cutting or piercing instruments	1,015	41	23	64	486
15	Secondary missile					
16–19	Others, military agents					
20–29	Total by sinking ships					
21	Sinking ships by storm					
22	Sinking ships by submarine					
30–39	Total by air machines					
30	Aeroplane					
31	Balloon					
40–49	Total by vehicles and animals	1,266	69	66	135	50
40	Automobile	472	68		68	
41	Motorcycle	9				
42	Railroad accident	104		37	37	
43	Street-car accident					
44	Others by vehicles	62		6	6	1
45	Animals	619	1	23	24	49
50–59	Total by industrial agents	5,157	214	188	402	1,357
50	Conflagrations					
51	Crushing	988	4	8	12	337
52	Electricity					
53	Fall	3,862	200	180	380	826
54	Falling timbers	166				9
55	Fire	94				25
56	Splinters	19				10
57	Machinery	28	10		10	150
60–69	Total for extreme temperatures	2				2
60	Excessive cold					2
61	Heat	2				
70–79	Total by natural causes	120	1		1	11
70	Landslides					
71	Lightning					
72	Stones	9				
73	Strangulations		1		1	
74	Falling earth					
75	Jumping	45				72
76	Hot liquid	66				45
80–81	Total by chemicals and poisons	10				14
80	Chemicals	10				14
81	Poison					
99	All others from external agents	3,817	119	142	261	1,796

TABLE No. XXI.—*Total days lost—total noneffective—total army (including*

RATIOS PER 1,000 OF MEAN STRENGTH.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	0.04	0.06	0.00	0.05	0.05	.05
2	Typhus fever	.00	.00	.00	.00	.00	.00
3	Relapsing fever (all)	....	.00	....	.00	.00	.00
4	Malarial fevers (all)	.11	.20	.28	.20	.20	.21
4a	Malarial fever, estivo-autumnal	.01	.03	.06	.03	.03	.03
4b	Malarial fever, mixed	....	.00	.00	.00	.00	.00
4c	Malarial fever, quartan	.00	.00	.00	.00	.00	.00
4d	Malarial fever, tertian	.08	.12	.19	.13	.12	.13
4e	Malarial fever, undetermined	.02	.04	.03	.04	.04	.04
5	Smallpox	.00	.01	.09	.01	.01	.01
6	Measles (all)	.32	2.41	2.07	2.40	2.31	2.29
6a	Measles, uncomplicated	.31	2.02	1.85	2.01	1.93	1.92
6c	Measles with broncho-pneumonia	....	.15	.06	.15	.14	.14
6d	Measles with lobar pneumonia	....	.08	.08	.08	.08	.08
6f	Measles with other complications	.01	.17	.08	.16	.16	.15
7	Scarlet fever	.05	.22	.05	.21	.21	.20
8	Whooping cough	....	.00	.00	.00	.00	.00
9	Diphtheria and results	.04	.09	.02	.09	.09	.09
10	Influenza (all)	.60	.71	.43	.70	.69	.69
14	Dysentery (all)	.09	.06	.14	.07	.07	.07
14a	Dysentery, bacillary	.00	.00	.00	.00	.00	.00
14b	Dysentery, balantidic	....	.00	....	.00	.00	.00
14c	Dysentery, entamœbic	.07	.05	.11	.05	.05	.05
14d	Dysentery (other protozoal)	....	.00	.00	.00	.00	.00
14e	Dysentery, unclassified	.02	.01	.02	.01	.01	.02
15	Plague	....	.00	....	.00	.00	.00
17	Leprosy	....	.00	....	.00	.00	.00
18	Erysipelas	.02	.04	.04	.04	.04	.04
18b	Meningitis, cerebrospinal (epidemic)	.02	.10	.12	.10	.10	.10
19a	Chicken pox	.01	.02	.11	.02	.02	.02
19b	Diphtheria bacillus carrier	.00	.02	.02	.02	.02	.01
19c	German measles	.13	.34	.07	.33	.32	.32
19d	Hemoglobinuric fever (nonmalarial)	....	.00	.00	.00	.00	.00
19e	Paratyphoid fever A	.01	.00	....	.00	.00	.00
19f	Paratyphoid fever B	.00	.00	....	.00	.00	.00
19g	Trench fever	.01	.00	....	.00	.00	.00
19i	Typhoid bacillus carrier	....	.00	....	.00	.00	.00
19j	Typhoid vaccination	.06	.12	.08	.12	.12	.12
19k	Vaccinia	.03	.15	.05	.15	.14	.14
19l	Mumps	.16	1.33	1.69	1.34	1.28	1.28
20	Septicaemia, general	.00	.00	....	.00	.00	.00
20b	Pyæmia, surgical	....	.00	....	.00	.00	.00
21	Glanders	.00	.00	....	.00	.00	.00
22	Anthrax	....	.00	....	.00	.00	.00
24	Tetanus	....	.00	....	.00	.00	.00
25	Trench foot	.00	.00	....	.00	.00	.00
25a	Mycoses (others)	.00	.00	....	.00	.00	.00
26	Pellagra	....	.00	.01	.00	.00	.00
27	Beriberi	....	....	....	....	....	.00
47	Rheumatic fever	.14	.34	.26	.38	.32	.32
11, 19, 18a, 18c, 20a	Infectious disease (others)	.04	.08	.07	.08	.08	.09

officers, American and native troops) for the year 1917, at home and abroad.

RATIOS PER 1,000 OF MEAN STRENGTH.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
0.03	0.07	0.03	0.05	0.00	....	0.01	0.00	0.05
....	.00	....	.00	.00	....	....	....	.00
.00	.00	.00	.00	....	....	....	....	.00
.19	.20	.06	.15	.16	0.14	.07	.12	.15
.01	.01	.00	.01	.01	....	.00	.00	.01
.00	.00	.00	.00	....	.01	....	.00	.00
.00	.00	....	.00	....	....	.00	.00	.00
.15	.11	.03	.10	.12	.10	.06	.09	.10
.02	.08	.02	.04	.04	.03	.01	.02	.04
.02	.01	.01	.01	.09	....	.16	.12	.01
1.94	3.39	2.57	2.63	1.23	1.07	3.83	2.48	2.63
1.58	2.81	2.21	2.20	1.15	1.01	3.35	2.21	2.20
.10	.24	.14	.16	.01	....	.13	.06	.16
.06	.14	.08	.09	.02	.05	.18	.10	.09
.19	.20	.15	.18	.04	.02	.17	.10	.18
.38	.15	.14	.23	.02	....	.09	.05	.22
.00	.00	.00	.00	....	....	.01	.00	.00
.17	.10	.03	.10	.03	.05	.01	.02	.10
.73	.74	.49	.66	.32	.50	.41	.39	.65
.11	.03	.01	.05	.12	.00	.06	.08	.05
.00	.00	.00	.00	....	....	.01	.01	.00
....	....	....	....	....	....	....	....	....
.08	.01	.00	.04	.10	....	.02	.05	.04
.00	....	.00	.00	....	....	....	....	.00
.02	.01	.01	.01	.02	.00	.03	.02	.01
.00	.00	....	.00	....	....	....	....	.00
....	.00	.00	.00	....	....	....	....	.00
.07	.05	.03	.05	.05	.02	.06	.05	.05
.11	.10	.12	.11	.03	.09	.26	.15	.11
.03	.01	.01	.02	.12	.02	.17	.13	.02
.01	.01	.02	.01	....	....	.03	.01	.01
.36	.35	.41	.37	.07	.16	.07	.08	.37
.00	.00	.00	.00	....	.03	....	.00	.00
.00	.01	....	.00	....	....	....	....	.00
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
,00	.00	.00	.00	....	....	....	....	.00
.18	.07	.16	.13	.12	.09	.10	.11	.13
.25	.13	.10	.16	.10	.06	.05	.07	.16
1.24	1.63	.83	1.26	.45	2.71	.80	.87	1.25
....	....	....	....	....	....	....	....	....
.01	.00	.00	.00	....	....	....	....	.00
.00	.00	....	.00	....	....	....	....	.00
.00	.00	.00	.00	....	....	....	....	.00
.00	.00	....	.00	....	....	....	....	.00
.00	....	....	.00	....	....	....	....	.00
.00	.00	.00	.00	....	....	....	....	.00
.00	.00	.00	.00	.00	....	.02	.01	.00
....	....	....	....	....	....	....	....	....
.52	.36	.15	.35	.25	.63	.20	.27	.35
.02	.06	.15	.08	.00	.05	.09	.05	.07

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).						
1	Typhoid fever	0 02	0.00		0.01	0.04	0.01
2	Typhus fever						
3	Relapsing fever (all)						
4	Malarial fevers (all)	.06	.02		.05	.09	.05
4a	Malarial fever, estivo-autumnal	.00			.00		.00
4b	Malarial fever, mixed						
4c	Malarial fever, quartan	.00			.00		.00
4d	Malarial fever, tertian	.03	.01		.02	.05	.02
4e	Malarial fever, undetermined	.03	.01		.03	.04	.03
5	Smallpox						
6	Measles (all)	.44	1.88	0.62	.75	1.59	.76
6a	Measles, uncomplicated	.39	1.70	.38	.67	1.46	.68
6c	Measles with broncho-pneumonia	.02	.04	.03	.03		.03
6d	Measles with lobar pneumonia		.00		.00		.00
6f	Measles with other complications	.02	.13	.21	.05	.13	.05
7	Scarlet fever	.11	.38	.46	.17		.17
8	Whooping cough		.00		.00		.00
9	Diphtheria and results	.06	.03	.03	.06		.06
10	Influenza (all)	.80	3.07	1.24	1.29	1.11	1.28
14	Dysentery (all)	.05	.00		.04	.01	.04
14a	Dysentery, bacillary	.00			.00		.00
14b	Dysentery, balantidic						
14c	Dysentery, entamebic	.02			.02		.02
14d	Dysentery (other protozoal)					.01	.00
14e	Dysentery, unclassified	.02	.00		.02		.02
15	Plague						
17	Leprosy						
18	Erysipelas	.01	.02	.00	.01		.01
18b	Meningitis, cerebrospinal (epidemic)	.07	.09	.27	.08	.09	.08
19a	Chicken pox	.01	.02	.04	.01		.01
19b	Diphtheria bacillus carrier	.01			.01		.01
19c	German measles	.10	.09	.19	.10	.12	.10
19d	Hemoglobinuric fever (nonmalarial).						
19e	Paratyphoid fever A	.00			.00		.00
19f	Paratyphoid fever B	.02			.01		.01
19g	Trench fever	.10	.02		.02		.02
19i	Typhoid bacillus carrier						
19j	Typhoid vaccination	.01	.00	.02	.01	.01	.01
19k	Vaccinia	.01	.01		.01	.01	.01
19l	Mumps	1.84	4.06	1.93	2.31	11.84	2.46
20	Septicaemia, general	.00	.00		.00		.00
20b	Pyaemia, surgical						
21	Glanders						
22	Anthrax						
24	Tetanus						
25	Trench foot	.06	.03		.05		.05
25a	Mycoses (others)						
26	Pellagra						
27	Beriberi						
47	Rheumatic fever	.21	.33	.17	.23	.39	.24
11, 19, 18a, 18c,	Infectious disease (others)	.01	.00	.29	.02	.06	.02

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
....	....	....	....	....	....	....	....	....	0.84	....	0.68
....	....	....	0.00	....	0.00	....	....	....	.00	0.01	.00
....	....	....	....	....	....	....	....	....	....	....	....
0.11	0.42	0.19	.27	0.45	.29	1.54	2.10	1.61	.11	.02	.09
.03	....	.02	:00	....	.00	.23	.63	.29	.02	.01	.02
.07	....	.05	....	....	....	....	....	....	....	....	....
....	....	....	.03	....	.03	.02	....	.02	....	....	....
....	....	....	.14	.24	.15	1.24	1.39	1.26	.09	.01	.07
.02	.42	.12	.10	.21	.11	.05	.07	.05	....	....	....
....	....	....	.04	....	.04	.00	....	.00	....	....	....
.05	.94	.27	5.25	5.59	5.28	.10	.05	.09	.65	....	.65
.05	.94	.27	4.62	5.30	4.67	.10	.05	.09	.53	.30	.55
....	....	....	.42	.29	.41	....	....	....	.05	.10	.06
....	....	....	.02	....	.02	....	....	....	....	....	....
....	....	....	.20	....	.18	.01	....	.00	.05	.05	.05
....	....	....	.71	.69	.71	.00	....	.00	.13	....	.11
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.19	....	.18	....	....	....	.02	....	.02
.23	.97	.41	3.50	2.02	3.40	.04	.17	.06	.27	.36	.29
.03	....	.02	.21	.26	.21	.95	.92	.95	.05	....	.04
....	....	....	.12	....	.11	....	....	....	.00	....	.00
....	....	....	....	....	....	.00	....	.00	....	....	....
.03	....	.02	.04	.25	.06	.86	.85	.85	.04	....	.03
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.05	.01	.04	.09	.07	.09	.01	....	.01
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.02	....	.02	.02	....	.01	.01	....	01
....	....	....	.30	.33	.30	....	....	....	.02	.03	.02
....	....	....	.06	.18	.07	.01	....	.01	.01	.11	.03
....	....	....	....	.01	.00	....	.03	.00	.33	.09	29
....	....	....	.60	.22	.58	.00	....	.00	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.00	....	.00	....	....	....	....	....	....
.04	....	.03	.31	....	.29	.01	....	.01	....	....	....
.02	....	.01	.68	.07	.64	.01	....	.01	.03	....	.03
....	....	....	5.58	11.67	6.00	.16	1.69	.63	1.11	2.12	1.30
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	.02	....	.01
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.01	....	.01	....	....	....	....	....	....
....	....	....	.01	....	01	....	....	....	....	....	....
....	....	....	.01	....	01	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
.30	1.02	.48	.78	.78	.78	.12	.16	.13	.09	05	.08
....	....	....	.09	.32	.11	.85	.30	.77	.01	....	.01

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs	0.52	0.77	1.45	0.79	0.78	0.77
29	Miliary tuberculosis, acute	.00	.00	.00	.00	.00	.00
30–35	Tuberculosis (others)	.03	.05	.12	.05	.05	.05
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)	.13	.86	2.63	.91	.88	.88
37a	Syphilis, hereditary	....	.00	.00	.00	.00	.00
37b	Syphilis, primary	.03	.21	.74	.22	.21	.22
37c	Syphilis, secondary	.04	.50	1.06	.51	.49	.49
37d	Syphilis, tertiary	.06	.16	.82	.18	.17	.17
38a	Chancroidal	.01	.58	2.35	.63	.60	.59
38b	Gonococcus infection	.19	2.18	3.22	2.21	2.12	2.11
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets	.00	.00	....	.00	.00	.00
39–45	Cancer and other malignant tumors	.03	.01	.01	.01	.01	.01
46	Benign tumors	.03	.04	.03	.04	.04	.04
48	Arthritis	.12	.28	.36	.28	.27	.27
48a	Gout	.01	.00	....	.00	.00	.00
49	Scurvy	....	.00	....	.00	.00	.00
50	Diabetes mellitus	.03	.01	.01	.01	.01	.01
51a	Diseases of the thyroid gland (goiter, simple, excepted)	.02	.05	.01	.05	.05	.05
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted)	.00	.00	.00	.00	.00	.00
53a	Leukemia	....	.00	....	.00	.00	.00
54	Anaemia	....	.01	.01	.01	.01	.01
55a	Purpura rheumatica	....	.00	....	.00	.00	.00
56	Inebriety, drug addiction	.02	.01	.04	.02	.02	.02
56a	Alcoholism	.02	.04	.04	.04	.04	.04
57–59	Poisoning, chronic	....	.00	.01	.00	.00	.00
55, 88	General diseases (others)	.04	.13	.18	.13	.12	.12
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple	....	.00	.00	.00	.00	.00
62	Locomotor ataxia	.01	.01	....	.01	.01	.01
63	Diseases of the spinal cord (others)	.01	.01	.06	.01	.01	.01
64	Apoplexy	.01	.00	....	.00	.00	.00
66	Paralysis, cause not specified	.02	.02	.04	.02	.02	.02
69	Epilepsy	.02	.13	.27	.14	.13	.13
72	Chorea	....	.01	....	.01	.01	.01
73	Hysteria and results (psychoses excepted)	.09	.06	.09	.06	.06	.06
73a	Neuralgia	.03	.03	.07	.03	.03	.03
73b	Neuritis	.05	.04	.02	.04	.04	.04
74a	Neurasthenia	.27	.07	.09	.07	.08	.08
60, 65, 70, 73, 74	Diseases of the nervous system (others)	.02	.07	.09	.07	.07	.07
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane	....	.01	.00	.01	.00	.00
68a	Constitutional psychopathic states	.02	.04	.07	.04	.04	.04
68b	Dementia præcox	.02	.15	.32	.16	.15	.15
68c	Mental deficiency	....	.10	.14	.10	.09	.09

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
1.18	0.62	0.40	0.75	1.36	1.19	1.64	1.48	0.77
.00	.01	.00	.00		.01		.00	.00
.07	.04	.03	.05	.06	.18	.09	.09	.05
.99	.86	.54	.81	3.44	2.59	2.58	2.92	.86
.00	.00	.00	.00					,00
.23	.21	.13	.19	.74	.93	1.04	.91	.21
.55	.53	.33	.48	1.23	1.34	.95	1.10	.49
.21	.12	.08	.14	1.47	.32	.58	.91	.16
.74	.56	.21	.52	2.51	3.00	1.35	1.99	.56
2.34	2.86	1.24	2.20	3.18	4.77	3.52	3.52	2.23
.01	.00	.00	.00					.00
.01	.01		.01	.02			.01	.01
.06	.04	.02	.04	.08		.06	.06	.04
.32	.29	.20	.27	.49	.75	.29	.42	.28
.00	.00	.00	.00					.00
.00	.00	.00	.00					.00
.01	.01	.01	.01	.01			.00	.01
.04	.09	.03	.06			.03	.01	.05
.00	.00	.00	.00	.02			.01	
.00	.00		.00					.00
.01	.01	.01	.01	.00			.00	.01
.00		.00	.00					.00
.02	.01	.04	.03	.07	.03	.05	.05	.03
.06	.03	.02	.04	.02		.00	.01	.04
.00	.00	.00	.00					.00
.16	.14	.08	.13	.20	.53	.06	.17	.13
.01	.00	.00	.00			.01	.00	.00
.01	.00	.00	.00					.00
.01	.01	.01	.01	.18	.01	.01	.08	.01
.00	.00	.00	.00					.00
.03	.02	.01	.02	.02		.04	.03	.02
.20	.11	.09	.13	.30	.14	.36	.31	.14
.01	.01	.00	.01					.01
.06	.04	.04	.05	.04	.06	.11	.07	.05
.04	.02	.02	.03	.17		03	.08	.03
.06	.03	.03	.04	.01	.08	.02	.02	.04
.08	.05	.05	.06	.04	.08	01	.03	.06
.10	.07	.05	.07	.11		.07	.08	.07
.10	.00	.00	.00	.02			.01	.00
.07	.03	.02	.04	.15	.05		.06	.04
.23	.09	.05	.13	.36		.06	.17	.13
.14	.09	.06	.10	.20	.01	.10	.13	.10

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength..................	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars	National Guard.	National Army.	Total.	Regulars.	White and colored.
	II. TUBERCULOSIS (ALL).						
28	Tuberculosis of lungs............	0.36	0.13	0.33	0.31	1.39	0.33
29	Miliary tuberculosis, acute.......	....	....	....	....	....	....
30–35	Tuberculosis (others)............	.05	.04	.02	.04	.06	.04
	III. VENEREAL DISEASES (ALL).						
37	Syphilis (all)..................	.70	.43	.26	.64	1.33	.65
37a	Syphilis, hereditary............	.01	....	....	.01	....	.01
37b	Syphilis, primary..............	.27	.14	.07	.24	.52	.24
37c	Syphilis, secondary............	.30	.21	.19	.28	.39	.28
37d	Syphilis, tertiary..............	.12	.07	....	.11	.41	.11
38a	Chancroid.....................	.51	.16	.12	.42	.36	.42
38b	Gonococcus infection............	1.25	.81	.51	1.14	1 42	1.14
	IV. GENERAL DISEASES (OTHERS).						
36	Rickets.......................	.00	....	....	.00	....	.00
39–45	Cancer and other malignant tumors..................	.00	.00	....	.00	....	.00
46	Benign tumors..................	.02	.02	....	.02	.10	.02
48	Arthritis......................	.27	.28	.16	.27	.16	.27
48a	Gout..........................	....	....	....	....	....	....
49	Scurvy........................	....	....	....	....	....	....
50	Diabetes mellitus...............	.00	....	....	.00	....	.00
51a	Diseases of the thyroid gland (goiter, simple, excepted).......	.01	.02	....	.01	....	.01
51b, 52 53b, 116	Diseases of the ductless glands (thyroid excepted.)............	.00	....	.04	.00	....	.00
53a	Leukemia......................	....	....	....	....	....	....
54	Anaemia.......................	.00	.00	....	.00	....	.00
55a	Purpura rheumatica.............	....	....	....	....	....	....
56	Inebriety, drug addiction........	.01	.01	....	.01	....	.01
56a	Alcoholism.....................	.03	.02	.01	.02	.01	.02
57–59	Poisoning, chronic..............	.00	....	....	.00	....	.00
55, 88	General diseases (others)........	.07	.14	.08	.09	.30	.09
	V. NERVOUS SYSTEM, DISEASES OF (ALL).						
61	Meningitis, simple..............	.00	.01	....	.00	....	.00
62	Locomotor ataxia...............	.02	.01	....	.02	....	.02
63	Diseases of the spinal cord (others)	.01	....	....	.01	....	.01
64	Apoplexy......................	....	....	....	....	....	....
66	Paralysis, cause not specified.....	.01	.03	....	.01	....	.01
69	Epilepsy......................	.09	.03	.01	.08	.15	.08
72	Chorea........................	.00	.03	....	.01	....	.01
73	Hysteria and results (psychoses excepted)...................	.08	.11	.01	.08	.09	.08
73a	Neuralgia......................	.01	.02	....	.01	.02	.01
73b	Neuritis.......................	.03	.02	.05	.03	.04	.03
74a	Neurasthenia...................	.03	.06	....	.03	....	.03
60 65, 70 73, 74	Diseases of the nervous system (others)......................	.03	.05	.01	.03	.09	.03
	VI. MENTAL ALIENATION.						
67	General paralysis of the insane...	.00	.01	....	.00	....	.00
68a	Constitutional psychopathic states	.01	....	....	.00	.03	.00
68b	Dementia praecox...............	.08	.06	....	.07	....	.07
68c	Mental deficiency...............	.08	.01	....	.06	.05	.06

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
2.41	3.54	2.69	3.78	3.75	3.78	2.30	1.30	2.16	1.25	0.88	1.18
......	......	......	.03	......	.03	......	......	......	......	......	......
......	......	......	.21	.39	.23	.01	.36	.06	.02	.09	.03
1.67	4.17	2.28	3.71	3.26	3.68	3.35	1.61	3.11	.77	1.70	.94
......	......	......	......	......	......	.00	......	.00	.03	.02	.02
......	......	......	.88	1.37	.91	.54	.24	.49	.13	.13	.13
.76	1.32	.90	2.11	.65	2.01	2.16	1.02	2.01	.27	1.06	.41
.90	2.85	1.38	.72	1.25	.76	.65	.35	.61	.34	.50	.37
.45	1.19	.63	2.41	.87	2.30	2.05	8.22	2.90	1.29	1.36	1.30
.47	1.58	.74	6.94	5.09	6.81	4.48	3.46	4.35	2.10	1.73	2.03
......	......	......	.01	......	.01	.00	......	.00	......	......	......
......	......	......	.07	......	.07	.02	......	.01	.02	......	.02
.04	......	.03	.17	......	.16	.05	.11	.06	.16	.13	.16
.04	.12	.06	.75	.69	.74	.23	.17	.23	.27	.12	.24
......	......	......	.02	......	.01	.00	......	.00	.00	......	.00
......	......	......	......	......	......	......	......	......	......	......	......
......	.40	.10	......	......	......	.05	......	.04	......	......	......
......	......	......	.09	......	.08	.09	......	.08	.06	......	.05
......	......	......	.07	......	.07	.00	......	.00	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	.03	......	.03	.02	.05	.02	.02	......	.02
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	.05	.01	.05	.02	......	.02	.00	......	.00
.00	......	.00	.06	......	.06	.38	.07	.34	.09	.22	.12
......	......	......	.00	......	.00	.01	.16	.03	.00	......	.00
.30	.12	.26	.25	.76	.29	.07	.22	.09	.15	.07	.14
......	......	......	.01	......	.01	.01	......	.00	......	......	......
......	......	......	......	......	......	.04	......	.03	......	......	......
......	......	......	.02	......	.02	.02	......	.01	.04	......	.03
......	......	......	......	......	......	......	......	......	.03	......	.02
......	......	......	.01	.95	.08	.01	......	.00	.01	.05	.02
......	......	......	.55	.69	.56	.18	.38	.22	.11	......	.09
......	......	......	......	......	......	.03	......	.03	......	......	......
......	......	......	.39	......	.36	.07	.17	.08	.07	.12	.08
......	......	......	.10	.01	.10	.07	.06	.07	.06	.01	.05
......	......	......	.09	.24	.10	.02	......	.02	.03	.01	.03
......	.97	.24	.21	.95	.26	.43	.50	.44	.04	......	.04
.38	......	.29	.03	.29	.05	.01	.05	.02	.04	.15	.06
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	.23	......	.21	.14	......	.12	.17	.17	.17
......	......	......	1.04	1.30	1.05	.74	1.62	.86	.62	.34	.57
......	......	......	.11	.01	.10	.02	......	.02	.19	.39	.22

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	VI. MENTAL ALIENATION—continued.						
68d	Psychasthenia	0.02	0.01	....	0.01	0.01	0.01
68e	Psychoneurosis	.00	.02	0.01	.02	.02	.02
56b	Psychoses (alcoholic)	.00	.01	.00	.01	.01	.01
68f	Psychoses (nonalcoholic)	.06	.05	.11	.05	.05	.05
68	Mental alienation (others)	.03	.01	.01	.01	.01	.01
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	.05	.11	.15	.11	.11	.11
75b	Trachoma	.00	.03	.00	.03	.03	.03
75c	Refractive errors	.01	.03	.02	.03	.03	.02
75e	Iritis	.02	.02	.04	.02	.02	.02
75f	Keratitis	.02	.02	.04	.02	.02	.02
75g	Choroiditis	.00	.00	....	.00	.00	.00
75h	Retinitis	.02	.01	.04	.01	.01	.01
75i	The eyes and annexa (other diseases of)	.04	.07	.14	.07	.07	.07
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	.01	.02	.01	.02	.02	.02
76b	Otitis media	.11	.31	.18	.31	.30	.30
76c	Ears, other diseases of	.00	.02	.01	.02	.01	.01
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	.01	.01	.01	.01	.01	.01
86b	Deviation of nasal septum or spurs	.08	.05	.01	.05	.05	.05
86c	Sinusitis	.09	.04	.04	.04	.05	.05
86d	Nasal fossæ, other diseases of	.09	.12	.09	.12	.12	.12
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	.14	.13	.08	.12	.12	.12
100	Pharynx, diseases of	.17	.17	.16	.17	.17	.17
100a	Tonsils, diseases of	.56	1.04	.70	1.03	1.01	1.00
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis	.00	.00	.00	.00	.00	.00
78	Endocarditis, acute	.00	.01	.00	.01	.01	.01
79	Valvular heart diseases	.05	.17	.18	.17	.17	.16
79a	Heart, other organic diseases of	.05	.09	.14	.09	.09	.09
80	Angina pectoris	.01	.00	.01	.00	.00	.00
81a	Aneurysm	....	.00	.00	.00	.00	.00
81	Arteries, other diseases of	.07	.01	.00	.01	.01	.01
82	Embolism amd thrombosist	.03	.00	....	.00	.00	.00
83a	Hemorrhoids	.15	.18	.43	.19	.18	.18
83b	Varicocele	.02	.13	.05	.12	.12	.12
83	Veins, other diseases of	.03	.08	.05	.08	.08	.08
84a	Status lymphaticus	....	.00	.00	.00	.00	.00
84	Lymphatic system, other diseases of	.09	.20	.25	.20	.20	.20
85a	Cardiac arrythmias	.00	.00	....	.00	.00	.00
85b	Cardiac murmur, not organic	.00	.00	....	.00	.00	.00
85c	Cardiac disorders, functional	.00	.01	.01	.01	.01	.01
85d	Hemorrhage	.01	.01	.01	.01	.01	.01
85	Circulatory system, other diseases of	.02	.03	.04	.03	.03	.03

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
0.01	0.01	0.01	0.01					0.01
.03	.02	.02	.02	0.00	0.00	0.01	0.01	.02
.01	.01	.01	.01	.00		.00	.00	.01
.06	.04	.04	.05	.21		.05	.11	.05
.02	.01	.00	.01	.03		.00	.01	.01
.13	.10	.10	.11	.11	.05	.19	.14	.11
.03	.05	.03	.04	.00	.01		.00	.04
.03	.03	.01	.02	.05	.01	.00	.02	.02
.02	.02	.01	.02	.02	.00	.08	.05	.02
.02	.03	.02	.02	.04	.10	.04	.05	.02
.00	.01	.00	.00					.00
.01	.01	.00	.01	.13		.01	.06	.01
.08	.08	.03	.06	.30	.06	.07	.16	.07
.02	.03	.01	.02	.01		.00	.01	.02
.33	.44	.17	.32	.17	.21	.19	.18	.32
.02	.02	.01	.01	.02	.00	.00	.01	.01
.01	.01	.00	.01	.01	.01		.01	.01
.07	.06	.02	.05	.02			.01	.05
.06	.04	.02	.04	.04	.06	.05	.05	.04
.17	.11	.10	.13	.10	.11	.09	.10	.13
.15	.11	.11	.13	.06	.01	.09	.07	.13
.20	.16	.13	.17	.25	.08	.12	.17	.17
1.44	1.07	.64	1.07	.89	.88	.58	.73	1.07
.01	.00	.00	.00			.01	.00	.00
.01	.01	.00	.01		.01	.00	.00	.01
.20	.20	.13	.18	.25	.15	.21	.22	.18
.13	.10	.05	.09	.16	.09	.12	.13	.09
.01	.00	.00	.00		.01	.02	.01	.00
.00	.00	.00	.00					.00
.01	.01	.00	.01			.00	.00	.01
.01	.00	.00	.00					.00
.20	.18	.10	.17	.43	.32	.49	.44	.17
.14	.16	.07	.13	.06	.05	.06	.06	.12
.10	.08	.05	.08	.02	.06	.05	.04	.08
.00			.00			.01	.00	.00
.28	.18	.05	.18	.40	.31	.08	.23	.18
.01	.00	.00	.00					.00
.00	.00	.00	.00					.00
.01	.00	.00	.00			.01	.01	.00
.01	.01	.01	.01	.01	.01	.01	.01	.01
.04	.03	.02	.03	.05	.14	.03	.05	.03

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	VI. MENTAL ALIENATION—contd.						
68d	Psychasthenia	0.00			0.00		0.00
68e	Psychoneurosis	.01			.00		.00
56b	Psychoses (alcoholic)					0.01	.00
68f	Psychoses (nonalcoholic)	.04	0.01		.03		.03
68	Mental alienation (others)	.00			.00		.00
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.						
75a	Conjunctivitis	.09	.09	0.06	.09	.19	.09
75b	Trachoma	.00	.02		.01		.01
75c	Refractive errors	.03	.04	.00	.03		.03
75e	Iritis	.01	.06		.02		.02
75f	Keratitis	.01	.03	.04	.02		.02
75g	Choroiditis						
75h	Retinitis	.00	.00		.00		.00
75i	The eyes and annexa (other diseases of)	.06	.05	.04	.05	.08	.05
76	VIII. EAR, DISEASES OF.						
76a	Mastoiditis	.01	.03		.02		.02
76b	Otitis media	.21	.40	.21	.25	.18	.25
76c	Ears, other diseases of	.01	.00		.01		.01
86	IX. NASAL FOSSÆ, DISEASES OF.						
86a	Adenoids	.01	.02		.01		.01
86b	Deviation of nasal septum or spurs	.02	.01		.01		.01
86c	Sinusitis	.04	.06	.01	.04	.04	.04
86d	Nasal fossæ, other diseases of	.05	.17	.34	.08		.08
	X. THROAT, DISEASES OF.						
87	Larynx, diseases of	.10	.28	.38	.15	.37	.15
100	Pharynx, diseases of	.12	.27	.18	.15	.01	.15
100a	Tonsils, diseases of	.57	.91	.50	.64	.70	.64
	XI. CIRCULATORY SYSTEM, DISEASES OF.						
77	Pericarditis		.00		.00		.00
78	Endocarditis, acute	.00			.00		.00
79	Valvular heart diseases	.08	.08	.07	.08	.14	.08
79a	Heart, other organic diseases of	.04	.07		.05	.60	.05
80	Angina pectoris	.00	.00		.00		.00
81a	Aneurysm	.00			.00		.00
81	Arteries, other diseases of	.01	.00		.01		.01
82	Embolism and thrombosis	.00			.00		.00
83a	Hemorrhoids	.25	.34	.80	.28	.43	.28
83b	Varicocele	.05	.13	.12	.07	.07	.07
83	Veins, other diseases of	.12	.04	.09	.11	.18	.11
84a	Status lymphaticus						
84	Lymphatic system, other diseases of	.20	.11	.11	.18	.07	.18
85a	Cardiac arrhythmias						
85b	Cardiac murmur, not organic						
85c	Cardiac disorders, functional	.00	.01		.00		.00
85d	Hemorrhage	.00	.00		.00	.00	.00
85	Circulatory system, other diseases of	.01	.03		.01	.01	.01

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,121,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
....	....	....	0.03	....	0.02	0.00	....	0.00	....	....	....
....	....	....	.13	....	.12	....	0.02	.00	0 01	....	0.01
....	....	....	.01	....	.01	.01	....	.01	.02	....	.01
0.24	....	0.18	.18	....	.17	.03	....	.02	.04	0.22	.07
....	....	....	.13	....	.12	.00	....	.00	....	.01	.00
.94	0.10	.74	.46	0.26	.45	.07	.18	.09	.07	.10	.07
....	....	....	....	....	....	.03	.00	.03	.01	....	.01
....	....	....	.04	....	.03	.07	.03	.07	.06	....	.05
.22	....	.17	.11	....	.10	.03	....	.03	.01	.06	.02
....	....	....	.03	....	.03	.00	.02	.01	.00	.02	.01
....	....	....	.03	....	.03	....	....	....	.01	....	.00
....	....	....	.01	....	.01	....	....	....	.08	....	.07
.20	....	.15	.42	.06	.39	.14	.11	.13	.06	.04	.06
....	....	....	.05	....	.05	....	....	....	....	.03	.01
.91	....	.69	.76	.19	.72	.10	.27	.12	.09	.11	.09
....	.05	.01	.03	....	.03	.10	.04	.09	.04	.00	.03
....	....	....	.03	....	.03	....	.07	.01	.07	....	.06
....	....	....	.05	....	.05	.07	.00	.06	.07	.02	.06
.08	....	.06	.14	.08	.14	.01	....	.01	.03	.04	.03
.43	.04	.34	.39	.16	.37	.12	.03	.11	.12	.10	.11
.13	....	.10	.40	.45	.41	.01	.02	.01	.02	.03	.02
....	....	....	.56	.45	.55	.14	.06	.13	.23	.21	.23
2.28	1.44	2.08	2.65	1.19	2.55	.52	.48	.51	.98	.49	.89
....	....	....	.03	....	.03	.00	....	.00	....	....	....
....	....	....	.01	.03	.01	....	....	....	....	....	....
.56	....	.42	.32	....	.30	.15	.09	.15	.23	.09	.20
....	....	....	.31	.02	.29	.04	.27	.07	.07	.00	.06
....	....	....	.00	....	.00	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	.00	.01	.00
....	....	....	.04	....	.04	.00	....	.00	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
.28	.55	.34	.65	.76	.65	.22	.51	.26	.18	.20	.18
.07	....	.05	.13	.11	.13	.23	.06	.21	.11	.02	.09
.11	....	.08	.11	.15	.11	.15	....	.13	.09	.07	.08
....	....	....	....	....	....	....	....	....	....	....	....
1.06	1.06	1.06	.37	.43	.37	.49	.20	.45	.49	.35	.47
.14	....	.11	.00	....	.00	.00	....	.00	.00	....	.00
....	....	....	.00	....	.00	....	....	....	....	....	....
....	....	....	.00	....	.00	.02	.00	.02	.01	.02	.01
....	....	....	.01	.01	.01	.00	.00	.00	.00	....	.00
.01	....	.01	.05	....	.04	.05	.11	.06	.04	....	.03

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Tota officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	0.77	1.22	1.28	1.22	1.20	1.19
91	Broncho-pneumonia	.07	.12	.25	.12	.12	.12
92	Pneumonia, lobar	.21	.65	1.92	.68	.66	.66
92a	Pneumonia, interstitial	....	.00	....	.00	.00	.00
92b	Pneumonia, unclassified	.00	.00	.00	.00	.00	.00
93	Pleurisy	.10	.17	.24	.17	.17	.17
95	Gangrene of lung	....	.00	.01	.00	.00	.00
96, 97	Respiratory system, other diseases of	.04	.07	.11	.08	.07	.07
98	Abscess of lung	....	.00	....	.00	.00	.00
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	.08	.07	.07	.07	.07	.07
101	Esophagus, diseases of	....	.00	.00	.00	.00	.00
102	Ulcer of the stomach	.06	.03	.01	.03	.03	.03
103	Stomach, diseases of (ulcer and cancer excepted)	.12	.16	.20	.16	.16	.16
106	Ankylostomiasis	.00	.02	.00	.02	.02	.02
107	Trichinosis	....	.00	....	.00	.00	.00
107a	Intestinal parasites, others	.00	.01	.01	.01	.01	.01
108	Appendicitis	.41	.51	.67	.51	.51	.50
109	Hernia	.30	.49	.34	.49	.48	.47
109a	Intestinal obstruction	.01	.01	.02	.01	.01	.01
105, 110	Intestines, other diseases of	.57	.56	.56	.56	.56	.56
112	Hydatid tumor of liver	....	.00	....	.00	.00	.00
113	Cirrhosis of the liver	.90	.00	....	.00	.00	.00
114	Cholelithiasis	.02	.00	....	.00	.01	.01
115	Cholecystitis	.05	.03	.05	.03	.03	.03
115a	Liver, other diseases of	.03	.05	.01	.04	.04	.05
117	Peritonitis, acute diffuse	....	.00	.00	.00	.00	.00
117a	Peritonitis, acute, local	....	.00	....	.00	.00	.00
117b	Peritonitis, chronic	....	.00	.00	.00	.00	.00
117c	Peritoneal adhesions	.01	.02	.02	.02	.02	.02
118	Other diseases of the digestive system	.02	.01	.01	.01	.01	.01
118a	Pancreatitis	.00	.00	....	.00	.00	.00
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	.02	.02	.04	.02	.02	.02
120	Nephritis, chronic (Bright's disease)	.11	.05	.07	.05	.05	.05
122	Kidney and annexa, other diseases of	.05	.04	.07	.04	.04	.04
123	Calculi, of urinary passages	.05	.02	.01	.02	.02	.02
124	Bladder, diseases of	.02	.12	.26	.13	.12	.12
125	Urethra, diseases of	.01	.02	.03	.02	.02	.02
126	Prostate, diseases of	.01	.01	.00	.01	.01	.01
127	Male genital organs, diseases of (nonvenereal)	.02	.12	.15	.12	.12	.
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
142	Gangrene	.02	.00	....	.00	.00	.00
143	Furuncle	.06	.14	.10	.14	.14	.14
144	Acute abscess	.07	.15	.11	.14	.14	.14
144a	Cellulitis	.06	.12	.05	.12	.11	.12
145	Skin and annexa, other diseases of	.15	.43	.42	.43	.42	.42

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
1.23	1.26	0.84	1.12	1.07	0.96	1.12	1.08	1.12
.10	.18	.06	.11	.18	.08	.38	.27	.12
.62	.98	.45	.70	1.35	2.07	3.21	2.34	.73
.00			.00					.00
.00	.00	.00	.00	.00		.01	.00	.00
.23	.17	.09	.17	.29	.09	.28	.27	.17
.00	.00		.00					.00
.00	.00	.00	.00					.00
.08	.07	.06	.07	.05	.14	.12	.09	.07
.09	.07	.04	.07	.13	.00	.04	.07	.07
.00	.00	.00	.00					.00
.03	.03	.03	.03	.03		.01	.02	.03
.20	.16	.09	.16	.18	.15	.11	.14	.16
.03	.01	.01	.02					.02
.01	.01	.00	.01	.02		.00	.01	.01
.61	.58	.22	.49	.72	.21	.20	.41	.48
.56	.59	.30	.49	.42	.24	.32	.35	.49
.01	.01	.00	.01	.04			.01	.01
.71	.59	.21	.52	.69	.66	.16	.43	.52
.01	.00	.00	.00					.00
.01	.00	.00	.00					.00
.05	.03	.01	.03	.01		.01	.01	.03
.06	.04	.02	.04	.00		.01	.01	.04
.00	.00	.00	.00					.00
.00	.00	.00	.00					.00
.00	.00	.00	.00		.00		.00	.00
.02	.02	.01	.02					.01
.01	.00	.00	.01	.01	.02		.01	.01
.00			.00					.00
.03	.02	.01	.02	.03		.02	.02	.02
.06	.04	.02	.04	.10		.04	.06	.04
.04	.05	.02	.03	.05	.03	.01	.03	.03
.02	.02	.01	.02	.01			.01	.02
.15	.14	.07	.12	.26	.08	.10	.16	.12
.02	.02	.01	.02	.02	.02	.04	.03	.02
.01	.01	.00	.01		.01		.00	.01
.15	.12	.07	.12	.20	.15	.08	.14	.12
.00	.00	.00	.00					.00
.21	.12	.07	.14	.05	.04	.02	.04	.14
.18	.13	.08	.14	.10	.18	.08	.10	.14
.17	.11	.05	.11	.05	.02	.02	.03	.11
.49	46	.25	.41	.34	.44	.22	.29	.40

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	XII. RESPIRATORY SYSTEM, DISEASES OF.						
89, 90	Bronchitis	1.53	4.44	2.44	2.17	7.17	2.25
91	Broncho-pneumonia	.17	.36	.33	.22	.69	.22
92	Pneumonia, lobar	.25	.45	.25	.30	1.58	.32
92a	Pneumonia, interstitial	....	....	....	....	....	....
92b	Pneumonia, unclassified	.01	.02	....	.01	....	.01
93	Pleurisy	.19	.31	.10	.21	.59	.22
95	Gangrene of lung	....	....	....	....	....	....
98	Abcess of lung	....	.00	....	.00	....	.00
96, 97	Respiratory systems, other diseases of	.04	.03	.03	.05	.01	.05
	XIII. DIGESTIVE SYSTEM, DISEASES OF.						
99	Mouth and annexa, diseases of	.03	.07	.01	.03	.03	.07
101	Esophagus, diseases of	....	....	....	....	....	....
102	Ulcer of the stomach	.04	.01	.12	.04	....	.04
103	Stomach, diseases of (ulcer and cancer excepted)	.11	.16	.13	.12	.12	.12
106	Ankylostomiasis	.01	.00	....	.00	....	.00
107	Trichinosis	....	....	....	....	....	....
107a	Intestinal parasites, others	.01	.02	....	.01	....	.01
108	Appendicitis	.34	.45	.71	.37	.20	.37
109	Hernia	.41	.61	.32	.45	.18	.44
109a	Intestinal obstruction	.01	.00	....	.01	.01	.01
105, 110	Intestines, other diseases of	.46	.48	.43	.46	.58	.46
112	Hydatid tumor of liver	....	....	....	....	....	....
113	Cirrhosis of the liver	....	....	....	....	....	....
114	Cholelithiasis	.00	.00	....	.00	....	.00
115	Cholecystitis	.01	.01	.00	.01	....	.01
115a	Liver, other diseases of	.04	.04	.08	.04	....	.04
117	Peritonitis, acute diffuse	....	....	....	....	.01	.00
117a	Peritonitis, acute local	.00	....	....	.00	....	.00
117b	Peritonitis, chronic	....	....	....	....	....	....
117c	Peritoneal adhesions	.01	.00	....	.01	....	.01
118	Other diseases of the digestive system	.01	.00	.01	.01	....	.01
118a	Pancreatitis	....	....	....	....	....	....
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.						
119	Nephritis, acute	.02	.02	....	.02	....	.02
120	Nephritis, chronic (Bright's disease)	.01	.04	....	.02	.14	.02
122	Kidney and annexa, other diseases of	.02	.02	....	.02	....	.02
123	Calculi, of urinary passages	.02	.01	....	.02	....	.02
124	Bladder, diseases of	.04	.11	....	.05	.07	.05
125	Urethra, diseases of	.01	.01	....	.01	.09	.01
126	Prostate, diseases of	.00	.03	....	.01	....	.01
127	Male genital organs, diseases of (nonvenereal)	.09	.17	.05	.11	.20	.11
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.						
143	Furuncle	.09	.10	.01	.09	.11	.09
144	Acute abscess	.22	.11	.01	.19	.19	.19
144a	Cellulitis	.09	.11	.04	.10	....	.10
145	Skin and annexa, other diseases of	.43	.39	.32	.42	.17	.42

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
1.93	2.07	1.97	5.35	3.99	5.26	0.94	0.48	0.88	0.95	0.64	0.89
.09	.04	.08	.56	.12	.52	.00	.02	.00	.04	.22	.08
1.87	.83	1.62	1.61	5.56	1.89	.05	.09	.05	.23	.36	.25
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.03	....	.03	....	....	....	....	....	....
.29	.30	.29	.61	.92	.63	.12	.02	.10	.10	.05	.09
....	....	....	....	....	....	....	....	....	....	.05	.01
....	....	....	....	....	....	....	....	....	....	....	....
.10	....	.07	.79	.48	.77	.06	.27	.09	.22	.05	.19
....	....	....	.27	.05	.25	.13	.07	.12	.07	.02	.07
....	....	....	....	....	....	....	....	....	....	.01	.00
....	....	....	.08	.15	.08	.09	....	.08	.00	....	.00
.87	.15	.69	.66	.33	.64	.39	.55	.42	.13	.34	.17
....	....	....	.04	....	.04	.08	.01	.07	....	....	....
.68	....	.51	....	....	....	....	....	....	....	....	....
....	....	....	.06	....	.06	.07	.01	.06	.05	.01	.04
.72	.68	.71	1.34	.90	1.31	1.03	2.37	1.22	1.30	1.17	1.28
.01	....	.01	1.74	.10	1.62	.30	.60	.34	.35	.17	.32
....	....	....	.00	....	.00	.00	....	.00	....	.04	.01
.79	.22	.65	2.08	.82	1.99	1.67	1.01	1.58	.94	1.00	.95
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.00	....	.00	....	....	....	....	....	....
.03	....	.02	.09	....	.08	.07	.10	.07	.03	.32	.09
....	....	....	.23	.18	.23	.29	....	.25	.10	.02	.09
....	....	....	....	....	....	.00	....	.00	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.05	....	.05	.02	.19	.05	.02	....	.01
.09	....	.07	.00	....	.00	....	....	....	.00	....	.00
....	....	....	....	....	....	.03	....	.02	....	....	....
.06	....	.05	.18	....	.17	.01	.35	.06	....	....	....
....	....	....	.19	.31	.19	.13	.06	.12	.11	.05	.10
.11	....	.09	.07	.10	.07	.13	.37	.17	.01	.15	.04
....	....	....	.09	....	.08	.04	.08	.05	.01	.01	.01
.33	....	.25	.24	1.51	.33	.17	1.18	.31	.39	.14	.34
.25	....	.19	.15	.13	.15	.03	.01	.03	.06	.03	.06
....	....	....	.00	....	.00	.01	....	.01	.03	....	.02
....	.72	.18	.57	.17	.54	.21	.09	.19	.11	.23	.13
.36	....	.27	.42	.01	.39	.22	.75	.29	.35	.06	.30
.07	.27	.12	.51	.15	.49	.33	.25	.32	.06	.06	.08
.50	....	.38	.19	.21	.19	.21	.01	.18	.28	.20	.26
.32	.41	.34	1.36	.23	1.28	.91	1.63	1.01	.66	.48	.63

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	0.02	0.03	0.04	0.03	0.03	0.03
146a	Bones, other diseases of (tuberculosis excepted)	.01	.04	.05	.04	.04	.04
147	Joint, diseases of (rheumatism and tuberculosis excepted)	.04	.03	.05	.06	.06	.06
149	Pes planus	.02	.30	.26	.30	.29	.29
149a	Organs of locomotion, other diseases of	.10	.27	.21	.27	.26	.26
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	.04	.21	.35	.22	.21	.21
189	Not specified or ill-defined diseases	.26	.56	.98	.57	.56	.56
	Total for diseases	9.76	22.25	29.42	22.45	21.85	21.79
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	1.67	2.70	3.37	2.72	2.67	2.66
03	Bites	....	.00	.00	.00	.00	.00
04	Burns	.01	.04	.03	.04	.04	.04
05, 06	Burns, chemical and X-ray	.00	.01	.01	.01	.01	.01
09	Compression (brain)	....	.00	....	.00	.00	.00
10	Concussion (brain)	.03	.02	.01	.02	.02	.02
12	Contusion	.01	.04	.01	.04	.04	.04
14	Crushing	.01	.04	.02	.04	.03	.03
17-20	Dermatitis from traumatism	.03	.04	.02	.04	.04	.04
21	Dislocation of joint	.05	.07	.12	.07	.07	.07
62	Dislocation, articular, cartilage of knee	.01	.02	....	.02	.02	.02
22, 23	Drowning (except suicides)	....	....	....	....	....	....
28	Epiphyseal separation	....	.00	....	.00	.00	.00
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	.00	.01	.02	01	.01	.01
34	Foreign bodies	.00	.01	.01	.01	.01	.01
36	Fracture, simple	.53	.58	.51	.58	.57	.57
35	Fracture, compound	.08	.06	.03	.06	.06	.06
38-48	Fracture, faulty union	.01	.02	.00	.02	.02	.02
0x	Fracture near joint, with dislocation	....	.00	....	.00	.00	.00
37	Fracture comminuted	.03	.04	.05	.04	.04	.04
50	Gases deleterious, absorption of	.01	.00	....	.00	.00	.00
51	Gunshot wound	.04	.08	.11	.08	.08	.08
52-56	Hemorrhage and results	.00	.00	.00	.00	.00	.00
59	Homicides	.00	.00	.00	.00	.00	.00
66	Poisoning by food	.01	.01	.00	.01	.01	.01
67	Poisoning, other acute	.00	.00	.00	.00	.00	.00
96	Secondary result of injury	.06	.23	.48	.24	.23	.23
73	Sprain of joint	.25	.35	.47	.36	.35	.35
75	Strain	.03	.05	.07	.05	.05	.05
79	Suicide	.00	.00	....	.00	.00	.00
81	Synovitis, traumatic, cause undetermined	.05	.05	.07	.05	.05	.05
85	Venomous bites and stings	.01	.01	.01	.01	.01	.01
92	Wounds, extensive	.00	.00	....	.00	.00	.00
93	Wounds, multiple	.01	.00	.01	.00	.00	.00

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.								
White.				Colored.				Total.
70,808,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
0.04	0.03	0.01	0.03	0.03	0.06	0.05	0.04	0.03
.04	.05	.03	.04	.03	.08	.06	.05	.04
.07	.07	.03	.06	.06	.07	.04	.05	.06
.36	.33	.17	.29	.34	.53	.29	.34	.29
.31	.33	.16	.27	.28	.22	.14	.20	.27
.29	.23	.12	.22	.58	.70	.11	.36	.22
.68	.50	.47	.55	.95	.94	1.05	1.00	.56
25.52	24.68	14.68	22.06	28.76	30.09	28.03	28.55	22.21
3.77	2.69	1.13	2.62	5.50	2.68	1.21	3.09	2.63
.01	.00	.00	.00					.00
.07	.05	.01	.04	.06	.02	.03	.04	.04
.01	.01	.00	.01			.01	.01	.01
.00	.00		.00					.00
.03	.02	.01	.02	.01		.00	.00	.02
.03	.05	.05	.04	.01	.02	.00	.01	.04
.05	.04	.01	.04	.02		.01	.02	.04
.05	.04	.03	.04	.03	.07		.02	.04
.10	.06	.03	.07	.31	.02	.00	.13	.07
.02	.01	.00	.01					.01
.00	.00	.00	.00					.00
.01	.01	.00	.01	.05		.00	.02	.01
.01	.00	.00	.01	.02		.01	.01	.01
.83	.54	.17	.53	.80	.34	.11	.41	.53
.09	.06	.01	.06	.07	.10		.04	.06
.05	.02	.00	.02	.01	.02		.01	.02
.00	.00	.00	.00					.00
.05	.03	.01	.03	.15			.06	.03
.00	.00	.00	.00					.00
.10	.12	.01	.08	.20	.27	.00	.11	.05
.00	.00	.00	.00					.00
.00	.00		.00	.00			.00	.00
.01	.01	.00	.01	.01				.01
.01	.00	.00	.00	.00			.00	.00
.27	.28	.19	.25	.76	.29	.50	.58	.26
.48	.33	.22	.35	.72	.29	.13	.38	.35
.06	.05	.02	.05	.12	.01	.01	.05	.05
.07	.05	.02	.05	.16	.04	.01	.07	.05
.01	.01	.00	.01	.01			.00	.01
.01		.00	.00	.00	.02		.00	.00
.02	.00	.00	.01	.04	.17		.04	.10

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

um- pers f in- rna- onal assi- ica- ons.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.						
146	Osteomyelitis	0.01	0.01		0.01	0.03	0.01
146	Bones, other diseases of (tuberculosis excepted)	.05	.01		.04		.04
147	Joint, diseases of (rheumatism and tuberculosis excepted)	.06	.05		.05		.05
149	Pes planus	.19	.39	0.02	.23	.01	.22
149	Organs of locomotion, other diseases of	.15	.28	.26	.18	.11	.18
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.						
150	Congenital malformations	.09	.13	.04	.09	.31	.10
189	Not specified or ill-defined diseases	.46	.60	.55	.49	.68	.49
	Total for diseases	15.64	25.91	16.14	17.82	37.36	18.13
ffice assi- ica- ion.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.						
	Total	2.54	2.00	1.41	2.40	3.71	2.42
03	Bites	.00	.00		.00		.00
04	Burns	.04	.03		.05	.03	.05
5, 06	Burns, chemical and X-ray	.01	.01		.01		.01
09	Compression (brain)		.00		.00		.00
10	Concussion (brain)	.03	.01		.03		.03
12	Contusion	.05	.07	.02	.05		.05
14	Crushing	.02	.03		.02	.03	.02
7-20	Dermatitis from traumatism	.02	.00		.02		.02
21	Dislocation of joint	.05	.05	.11	.05	.01	.05
62	Dislocation, articular, cartilage of knee	.02	.01		.02		.02
28	Epiphyseal separation	.00			.00		.00
, 11, 32, 68, 69	Eye and annexa, traumatisms	.01	.01		.01		.01
34	Foreign bodies	.01			.01		.01
36	Fracture, simple	.55	.40	.14	.51	.07	.50
35	Fracture, compound	.08	.03		.07	.00	.07
3-48	Fracture, faulty union	.00	.00		.00		.00
0	Fracture near joint with dislocation	.01	.01		.01		.01
37	Fracture comminuted	.08	.01		.06		.06
50	Gases deleterious, absorption of	.00	.00	.07	.00		.00
51	Gunshot wound	.12	.03		.09	.00	.09
2-56	Hemorrhage and results	.00			.00		.00
59	Homicide	.00			.00		.00
66	Poisoning by food	.00	.01		.00		.00
67	Poisoning, other acute	.00	.00		.00		.00
96	Secondary result of injury	.07	.08	.11	.07	.20	.07
73	Sprain of joint	.28	.30	.33	.28	.33	.29
75	Strain	.06	.07	.07	.06	.20	.06
79	Suicides	.00			.00		.00
81	Synovitis, traumatic, cause undetermined	.03	.08	.06	.04		.00 .04
85	Venomous bites and stings	.00	.02		.01		.01
92	Wounds, extensive						
93	Wounds, multiple	.01	.00		.01		.01

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
....	....	....	....	....	....	0.01	....	0.01	0.05	0.08	0.05
....	....	....	0.35	0.28	0.34	.02	....	.02	.18	.05	.15
....	....	....	.21	.59	.23	.05	....	.04	.10	.02	.08
0.06	0.08	0.07	1.59	.27	1.50	.39	0.02	.33	.46	.06	.39
.08	.10	.08	.51	.14	.49	.36	.33	.35	.25	.22	.25
....	....	....	.46	.30	.45	.16	.50	.21	.21	.20	.20
1.28	.48	1.09	1.83	2.99	1.91	.85	1.00	.88	.72	.76	.73
25.14	25.05	25.12	73.28	67.18	72.85	31.45	38.96	32.49	23.13	20.65	22.68
2.34	.84	1.97	5.26	2.73	5.08	3.95	7.03	4.38	5.00	2.71	4.58
.01	.19	.05	.05	....	.05	.02	.03	.02	.00	....	.00
....	....	....	.11	.08	.11	.04	.01	.03	.06	.01	.05
....	....	....	.03	.05	.03	.02	....	.02	.01	....	.01
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.02	....	.02	.03	.07	.03	.05	.02	.04
.03	....	.03	.06	....	.05	.02	.03	.02	.00	.00	.00
....	....	....	.06	.28	.08	.07	....	.06	.04	....	.03
....	....	....	.04	.05	.04	.03	....	.03	.07	.01	.06
....	....	....	.16	....	.15	.09	.30	.12	.14	.02	.12
....	....	....	.01	....	.01	.05	....	.04	.02	....	.01
....	....	....	....	....	....	....	....	....	.01	....	.01
.25	....	.19	.02	.01	.02	.04	.00	.03	.01	.02	.01
....	....	....	.01	....	.01	.00	.01	.00	.03	.02	.02
.31	....	.23	1.07	....	1.00	1.13	1.02	1.11	1.95	1.07	1.78
....	....	....	.12	....	.11	.17	....	.14	.31	....	.25
....	....	....	.00	....	.00	.05	....	.05	.00	....	.00
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.04	....	.04	.20	.06	.18	.06	....	.05
.01	....	.01	.03	....	.03	....	....	....	....	....	....
.02	....	.01	.06	.01	.05	.03	.29	.06	.07	.01	.06
....	....	....	.01	....	.01	.00	....	.00	.01	.03	.01
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.01	....	.01	.01	....	.01	.05	....	.04
....	....	....	.06	....	.05	.03	....	.02	.00	.01	.01
.10	....	.07	.32	.24	.31	.11	.24	.12	.07	.18	.09
.28	.19	.26	.82	.73	.81	.40	1.37	.54	.64	.43	.60
....	....	....	.18	.04	.17	.07	.26	.10	.10	.05	.09
....	....	....	.00	....	.00	....	....	....	.00	....	.00
....	....	....	.09	....	.08	.01	.18	.04	.03	....	.03
....	....	....	.01	....	.01	.03	.04	.03	.01	.01	.01
....	....	....	.00	.05	.01	.00	.08	.01	....	....	....
....	....	....	....	....	....	.02	.07	.02	....	.08	.01

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of inernaional lassificaions.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	TRANMATISMS PRODUCED BY EXTERNAL CAUSES—con.						
94	Wounds, penetrating	0.01	0.01	0.04	0.01	0.01	0.01
95	Wounds, perforating	.02	.10	.15	.10	.09	.09
36-91	Wounds, others	.27	.61	.90	.62	.60	.61
0-02, 7,15, 16.24-27.29-1,49, 7,58, 0,61, 3-65, 0-72, 4,76-8.82-4.97-99	Traumatisms, others	.10	.19	.21	.19	.18	.18
80	Sunstroke		.00	.00	.00	.00	.00
	Total for diseases	9.76	22.25	29.42	22.45	21.85	21.79
	Total for external causes	1.67	2.70	3.37	2.72	2.67	2.66
	Grand total	11.43	24.94	32.79	25.16	24.52	24.44
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	1.67	2.70	3.37	2.72	2.67	2.66
01-19	Total military agents	.14	.40	.71	.41	.40	.40
01	Bayonet		.01	.01	.01	.01	.01
02	Club	.02	.02	.07	.02	.02	.02
03	Explosion of mine		.00		.00	.00	.00
04	Gas, asphyxiative		.00		.00	.00	.00
05	Gas, poisonous	.00	.00		.00	.00	.00
06	Flaming fluid	.00	.00	.00	.00	.00	.00
07	Hand grenade	.01	.00		.00	.00	.00
08	Knife	.00	.02	.06	.03	.02	.02
09	Pistol ball	.04	.08	.19	.09	.08	.08
10	Rifle ball	.01	.12	.19	.12	.11	.11
11	Saber		.00		.00	.00	.00
12	Shell	.01	.01		.01	.01	.01
13	Shrapnel	.01	.00		.00	.00	.00
14	Cutting or piercing instruments	.04	.13	.18	.13	.13	.13
15	Secondary missile	.01	.00		.00	.00	.00
16-19	Others, military agents		.00		.00	.00	.00
20-29	Total by sinking ships	.00				.00	.00
21	Sinking ships by storm	.00				.00	.00
22	Sinking ships by submarine	.00				.00	.00
30-39	Total by air machines	.04	.01		.01	.01	.01
30	Aeroplane	.04	.01		.01	.01	.01
31	Balloon		.00		.00	.00	.00
40-49	Total by vehicles and animals	.27	.43	.46	.43	.42	.42
40	Automobile	.10	.12	.08	.12	.12	.11

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
0.00	....	0.00	0.00	....	....	....	....	0.00
.13	0.12	.01	.09	0.21	0.21	0.04	0.13	.09
.93	.57	.22	.59	1.48	.66	.17	.75	.60
.26	.18	.09	.19	.25	.14	.17	.20	.19
.00	.00	....	.00	.00	....	....	.00	.00
25.52	24.68	14.68	22.06	28.76	30.09	28.03	28.55	22.21
3.77	2.69	1.13	2.62	5.50	2.68	1.21	3.09	2.63
29.29	27.37	15.81	24.68	34.26	32.77	29.24	31.64	24.84
3.77	2.69	1.13	2.62	5.50	2.68	1.21	3.09	2.63
.51	.47	.12	.38	1.03	.96	.31	.67	.39
.01	.01	.00	.01	.01	.07	....	.01	.01
.02	.02	.01	.02	.07	.03	.01	.04	.02
.00	....	....	.00	....	....	....	....	.00
.00	.00	....	.00	....	....	....	....	.00
....	.00	.00	.00	....	....	....	....	.00
.00	.00	.00	.00	.00	....	....	.00	.00
.00	.00	.00	.00	....	....	....	....	.00
.03	.03	.01	.02	.08	.04	.04	.06	.02
.12	.09	.01	.08	.32	.38	.02	.18	.08
.14	.19	.02	.12	.29	.32	.14	.22	.12
....	....	.00	.00	....	....	....	....	.00
.00	.00	.00	.00	....	....	....	....	.00
.00	.00	....	.00	....	....	....	....	.00
.17	.13	.07	.12	.26	.12	.10	.17	.13
.00	.00	....	.00	....	....	....	....	.00
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
.02	.00	.00	.01	....	....	....	....	.01
.02	.00	.00	.01	....	....	....	....	.01
.00	.00	....	.00	....	....	....	....	.00
.67	.40	.14	.42	.87	.30	.13	.44	.42
.15	.13	.05	.11	.11	.27	.01	.08	.11

TABLE No. XXI.—*Total days loss—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES—continued.						
94	Wounds, penetrating	0.05	0.00	....	0.04	0.01	0.04
95	Wounds, perforating	.16	.06	....	.14	.03	.14
86–91	Wounds, others	.58	.45	0.38	.55	2.54	.58
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	.20	.18	.12	.19	.24	.19
80	Sunstroke	....	....	....	....	....	....
	Total for diseases	15.64	25.91	16.14	17.82	37.36	18.13
	Total for external causes	2.54	2.00	1.41	2.40	3.71	2.42
	Grand total	18.18	27.91	17.56	20.22	41.07	20.55
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.						
	Total	2.54	2.00	1.41	2.40	3.71	2.42
01–19	Total military agents	.58	.29	.16	.51	.16	.51
01	Bayonet	.01	.00	....	.01	....	.01
02	Club	.03	.01	....	.02	.01	.02
03	Explosion of mine	....	....	....	....	....	....
04	Gas, asphyxiative	....	....	....	....	....	....
05	Gas, poisonous	....	.00	.06	.00	....	.00
06	Flaming fluid	.00	....	....	.00	....	.00
07	Hand grenade	.04	.01	....	.03	....	.03
08	Knife	.02	.01	.02	.02	....	.02
09	Pistol ball	.12	.06	....	.11	.04	.10
10	Rifle ball	.13	.04	....	.11	....	.10
11	Saber	.00	....	....	.00	....	.00
12	Shell	.09	.00	....	.07	....	.07
13	Shrapnel	.04	....	....	.03	....	.03
14	Cutting or piercing instruments	.11	.13	.08	.11	.11	.11
15	Secondary missile	....	....	....	....	....	....
16–19	Others, military agents	.00	.02	....	.01	....	.01
20–29	Total by sinking ships	....	....	....	....	....	....
21	Sinking ships by storm	....	....	....	....	....	....
22	Sinking ships by submarine	....	....	....	....	....	....
30–39	Total by air machines	.00	....	....	.00	....	.00
30	Aeroplane	.00	....	....	.00	....	.00
31	Balloon	....	....	....	....	....	....
40–49	Total by vehicles and animals	.41	.24	.16	.37	.35	.37
40	Automobile	.09	.07	.04	.09	.08	.09

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
....	....	....	....	....	....	....	....	....	....	....	....
0.51	....	0.38	0.09	....	0.08	0.11	0.41	0.15	0.05	0.15	0.07
.67	0.46	.62	1.50	0.88	1.46	.95	2.00	1.10	1.11	.54	1.00
.14	....	.11	.29	.32	.29	.24	.57	.29	.12	.06	.11
....	....	....	....	....	....	....	.01	.01	....	....	....
25.14	25.05	25.12	73.28	67.18	72.85	31.45	38.96	32.49	23.13	20.65	22.68
2.34	.84	1.97	5.26	2.73	5.08	3.95	7.03	4.38	5.00	2.71	4.58
27.48	25.89	27.09	78.55	69.91	77.94	35.41	45.97	36.87	28.13	23.37	27.25
2.34	.84	1.97	5.26	2.73	5.08	3.95	7.03	4.38	5.00	2.71	4.58
.86	....	.65	.67	.16	.64	.63	1.41	.74	.38	.75	.45
....	....	....	.02	....	.01	.03	....	.03	.01	.03	.01
....	....	....	.03	.03	.03	.15	.22	.16	.03	.25	.07
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.00	....	.00	....	....	....	....	....	....
....	....	....	.01	....	.01	....	....	....	....	....	....
....	....	....	.01	....	.01	....	....	....	.00	....	.00
....	....	....	.00	....	.00	.05	....	.04	.02	....	.02
.06	....	.04	.05	.07	.06	.06	.09	.07	.06	.10	.07
.51	....	.38	.08	....	.07	.17	.61	.23	.03	.09	.04
.27	....	.21	.19	.01	.18	.01	.08	.02	.08	.14	.09
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.00	....	.00	.00	....	.00	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
.02	....	.01	.28	.05	.26	.16	.41	.20	.15	.14	.14
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	.03	....	.03	....	....	....	....	....	....
....	....	....	.03	....	.03	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
.22	.09	.18	.46	.28	.45	.55	1.05	.62	1.00	.19	.85
....	....	....	.27	....	.25	.12	.01	.10	.31	.14	.28

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		United States, Europe, and other countries.					
	Mean strength	11,501,515	226,913,200	6,557,225	233,470,425	244,971,940	247,681,335
	Causes of admission to sick report.	Total officers.	Total white enlisted men, exclusive of native troops.	Total colored enlisted men, exclusive of native troops.	Total enlisted men (American troops).	Total officers and enlisted men (American troops).	Total officers and enlisted men, including native troops.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
41	Motor cycle	0.06	0.05	0.01	0.05	0.05	0.05
42	Railroad accident	.02	.06	.07	.06	.06	.06
43	Street-car accident	.00	.02	.01	.02	.02	.02
44	Others by vehicles	.00	.03	.04	.03	.03	.03
45	Animals	.08	.16	.25	.16	.16	.16
50–59	Total by industrial agents	.64	.81	1.01	.82	.81	.81
50	Conflagrations	....	.00	....	.01	.00	.00
51	Crushing	.16	.18	.31	.19	.19	.19
52	Electricity	.00	.00	....	.01	.00	.00
53	Fall	.46	.58	.64	.58	.58	.58
54	Falling timbers	.01	.01	.00	.01	.01	.01
55	Fire	.01	.01	.02	.01	.01	.01
56	Splinters	.01	.01	.00	.01	.01	.01
57	Machinery	.00	.01	.03	.01	.01	.01
60–69	Total for extreme temperatures	.00	.01	.00	.01	.01	.01
60	Excessive cold	....	.00	....	.00	.00	.00
61	Heat	.00	.01	.00	.01	.01	.01
70–79	Total by natural causes	.04	.06	.04	.06	.06	.06
70	Landslides	....	.00	.00	.00	.00	.00
71	Lightning	....	.00	....	.00	.00	.00
72	Stones	.00	.01	.01	.01	.01	.01
73	Strangulations	....	.00	....	.00	.00	.00
74	Falling earth	....	.00	....	.00	.00	.00
75	Jumping	.04	.03	.02	.03	.03	.03
76	Hot liquid	.00	.02	.01	.02	.02	.02
80–81	Total by chemicals and poisons	.00	.00	.00	.00	.00	.00
80	Chemicals	.00	.00	.00	.00	.00	.00
81	Poison	.00	.00	....	.00	.00	.00
99	All others from external agents	.52	.97	1.15	.98	.96	.96

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

United States.								
White.				Colored.				Total.
70,806,715	70,096,060	58,211,295	199,114,070	1,924,280	527,425	2,348,045	4,799,750	203,913,820
Regulars.	National Guard.	National Army.	Total.	Regulars.	National Guard.	National Army.	Total.	White and colored.
0.08	0.04	0.01	0.04	....	....	....	....	0.04
.06	.08	.03	.06	0.16	0.00	0.04	0.08	.06
.02	.02	.01	.02	....	.00	.03	.01	.02
.04	.03	.01	.03	.04	.01	.01	.02	.03
.32	.10	.03	.16	.56	.01	.04	.25	.16
1.26	.72	.27	.78	1.66	.34	.32	.86	.78
.00	.00	.00	.00	....	....	....	....	.00
.32	.15	.04	.18	.53	.04	.08	.26	.18
.00	.00	.00	.00	....	....	....	....	.00
.87	.54	.21	.56	1.07	.26	.21	.56	.56
.01	.00	.00	.00	.00	.04	....	.00	.00
.02	.01	.00	.01	.04	....	.01	.02	.01
.02	.01	.00	.01	.00	....	.00	.00	.01
.02	.01	.01	.01	.01	.00	.01	.01	.01
.01	.00	.00	.01	.00	.01	.00	.00	.01
.00	.00	.00	.00	....	....	....	....	.00
.01	.00	.00	.01	.00	.01	.00	.00	.01
.09	.06	.03	.06	.09	.02	.00	.04	.06
.00	....	....	.00	.01	....	....	.01	.00
.00	.00	.00	.00	....	....	....	....	.00
.01	.01	.00	.01	.03	....	.00	.01	.01
.00	.00	....	.00	....	....	....	....	.00
.01	.00	.00	.00	....	....	....	....	.01
.05	.03	.02	.03	.02	....	.00	.01	.03
.03	.02	.01	.02	.02	.02	....	.01	.02
.00	.00	.00	.00	....	....	....	....	.00
.00	.00	.00	.00	....	....	....	....	.00
.00	.00	.00	.00	....	....	....	....	.00
1.20	1.03	.56	.95	1.84	1.07	.43	1.07	.96

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers,*

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Europe.					
		White.				Colored.	Total.
	Mean strength	12,570,235	3,469,325	359,160	16,398,720	263,895	16,662,615
	Causes of admission to sick report.	Regulars.	National Guard.	National Army.	Total.	Regulars.	White and colored.
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE—continued.						
41	Motor cycle	0.05	0.01	0.03	0.04	0.05	0.04
42	Railroad accident	.10	.02	.03	.08	.05	.08
43	Street-car accident	.00	.03	....	.01	....	.01
44	Others by vehicles	.04	.01	.02	.03	.17	.03
45	Animals	.13	.10	.04	.12	....	.12
50–59	Total by industrial agents	.75	.57	.55	.71	1.86	.72
50	Conflagrations	....	....	....	....	....	....
51	Crushing	.16	.10	.25	.15	1.43	.17
52	Electricity	....	....	....	....	....	....
53	Fall	.56	.44	.28	.53	.37	.52
54	Falling timbers	.01	....	.01	.01	....	.01
55	Fire	.01	.02	.01	.01	.03	.01
56	Splinters	.01	.00	....	.01	....	.01
57	Machinery	.01	.01	....	.01	.03	.01
60–69	Total for extreme temperatures	.01	.00	....	.01	....	.01
60	Excessive cold	....	....	....	....	....	....
61	Heat	.01	.00	....	.01	....	.01
70–79	Total by natural causes	.04	.0	....	.05	....	.05
70	Landslides	....	....	....	....	....	....
71	Lightning	....	....	....	....	....	....
72	Stones	.01	.01	....	.01	....	.01
73	Strangulations	....	....	....	....	....	....
74	Falling earth	.00	....	....	.00	....	.00
75	Jumping	.01	.02	....	.01	....	.01
76	Hot liquid	.02	.05	....	.03	....	.03
80-81	Total by chemicals and poisons	.00	....	....	.00	....	.00
80	Chemicals	.00	....	....	.00	....	.00
81	Poison	....	....	....	....	....	....
99	All others from external agents	.74	.83	.55	.75	1.34	.76

American and native troops) for the year 1917, at home and abroad—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Mexico.			China, transports, and others.			Philippine Islands.			Hawaii.		
White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
227,760	73,365	301,125	1,391,745	103,295	1,495,040	3,421,145	549,690	3,970,835	3,399,245	767,230	4,166,475
Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.	Regulars.	Regulars.	White and colored.
....	....	....	0.03	....	0.03	0.12	....	0.10	0.35	0.05	0.30
....	....	....	.09	....	.08	.02	0.04	.03	.04	....	.03
....	....	....	....	0.28	.02	.07	....	.06	.00	....	.00
....	....	....	.01	....	.01	.08	.17	.10	.06	....	.05
0.22	0.09	0.18	.06	....	.06	.13	.84	.23	.23	....	.19
.70	.53	.66	1.49	.44	1.42	1.25	2.74	1.45	1.42	.49	1.25
....	....	....	.00	....	.00	.01	....	.01	....	....	....
.13	.03	.11	.27	.16	.26	.38	.67	.42	.36	.05	.30
....	....	....	....	....	....	....	....	....	....	....	....
.50	.50	.50	1.15	.22	1.09	.80	1.86	.95	1.00	.42	.89
....	....	....	.02	....	.02	.00	....	.00	.01	....	.01
....	....	....	.02	....	.01	.01	....	.01	.01	....	.01
.06	....	.05	.00	....	.00	.01	....	.00	.01	.01	.01
....	....	....	.03	.05	.03	.04	.21	.06	.02	.02	.02
....	....	....	.02	....	.02	.00	....	.00	.01	.01	.01
....	....	....	....	....	....	....	....	....	.01	....	.01
....	....	....	.02	....	.02	.00	....	.00	.01	.01	.01
.02	....	.01	.25	.30	.25	.05	.12	.06	.09	.01	.08
....	....	....	....	....	....	....	....	....	.06	....	.04
....	....	....	....	....	....	....	....	....	....	....	.00
....	....	....	.13	.19	.14	....	....	....	.00	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	.01	....	.01	.01	....	.01
.02	....	.01	.08	.10	.08	.02	.11	.03	.01	.01	.01
....	....	....	.04	.01	.04	.02	.01	.02	.02	....	.01
....	....	....	.09	....	.08	.04	....	.03	.00	.00	.00
....	....	....	.08	....	.08	.04	....	.03	.00	.00	.00
....	....	....	.00	....	.00	....	....	....	.00	....	.00
.54	.22	.46	2.25	1.55	2.20	1.44	1.71	1.47	2.10	1.25	1.95

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	I. INFECTIOUS DISEASES (EXCLUDING TUBERCULOSIS AND VENEREAL).					
1	Typhoid fever					
2	Typhus fever					
3	Relapsing fever (all)	.03				
4	Malarial fevers (all)	2.53			.59	1.66
4a	Malarial fever, estivo-autumnal	1.28			.06	.42
4b	Malarial fever, mixed	.00				
4c	Malarial fever, quartan	.02				
4d	Malarial fever, tertian	1.14			.46	1.21
4e	Malarial fever, undetermined				.07	.03
5	Smallpox					.03
6	Measles (all)	.32			2.80	.02
6a	Measles, uncomplicated	.32			2.80	.02
6c	Measles with broncho-pneumonia	.01				
6d	Measles with lobar pneumonia					
6f	Measles with other complications					
7	Scarlet fever	.02				
8	Whooping cough					
9	Diphtheria and results					.01
10	Influenza (all)	.57			1.19	.07
14	Dysentery (all)	.01			.34	.07
14a	Dysentery, bacillary					.02
14b	Dysentery, balantidic					
14c	Dysentery, entamœbic	.01			.01	.04
14d	Dysentery (other protozoal)					
14e	Dysentery, unclassified				.33	.02
15	Plague					
17	Leprosy					.04
18	Erysipelas	.00				.01
18b	Meningitis, cerebrospinal (epidemic)	.01				.04
19a	Chicken pox				.21	.24
19b	Diphtheria bacillus carrier					
19c	German measles	.02			1.33	.01
19d	Hemoglobinurid fever (nonmalarial)					
19e	Paratyphoid fever A					
19f	Paratyphoid fever B					
19g	Trench fever					
19i	Typhoid bacillus carrier	.02			.09	
19j	Typhoid vaccination				.05	.01
19k	Vaccinia	.01			.03	.00
19l	Mumps	.04			.02	.84
20	Septicaemia, general					
20b	Pyæmia, surgical					
21	Glanders					
22	Anthrax					
24	Tetanus					.00
25	Trench foot					
25a	Mycoses (others)					
26	Pellagra					
27	Beriberi				.13	.04
47	Rheumatic fever	.07			.07	.07
11, 19, 18a, 18c, 20a	Infectious disease (others)	.22			.00	1.38
	II. TUBERCULOSIS (ALL).					
28	Tuberculosis of lungs	.70			.20	.32
29	Miliary tuberculosis, acute					.01
30–35	Tuberculosis (others)	.10			.03	.21

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars	Regulars.	Regulars.		
	III. VENEREAL DISEASES (ALL).					
37	Syphilis (all)	1.41			2.70	.67
37a	Syphilis, hereditary	.00				
37b	Syphilis, primary	.21			1.47	.20
37c	Syphilis, secondary	.51			.84	.42
37d	Syphilis, tertiary	.69			.39	.05
38a	Chancroid	1.58			.55	.37
38b	Gonococcus infection	2.19			1.44	1.60
	IV. GENERAL DISEASES (OTHERS).					
36	Rickets	.01				
39–45	Cancer and other malignant tumors	.03				
46	Benign tumors	.04			.01	.15
48	Arthritis	.24			.01	.12
48a	Gout					
49	Scurvy					
50	Diabetes mellitus	.03				
51a	Diseases of the thyroidgland (goiter, simple, excepted)	.01				
51b, 52, 53b, 116	Diseases of the ductless glands (thyroid excepted)					.01
53a	Leukemia					
54	Anaemia	.00			.01	
55a	Purpura rheumatica					
56	Inebriety, drug addiction	.01				
56a	Alcoholism	.09			.01	.00
57–59	Poisoning, chronic	.00				.01
55, 88	General diseases (others)	.16			.09	.07
	V. NERVOUS SYSTEM, DISEASES OF (ALL).					
61	Meningitis, simple					
62	Locomotor ataxia					
63	Diseases of the spinal cord (others)					.05
64	Apoplexy					
66	Paralysis, cause not specified	.09			.06	
69	Epilepsy	.08			.00	.01
72	Chorea					
73	Hysteria and results (psychoses excepted)	.22			.54	.01
73a	Neuralgia	.01			.01	.01
73b	Neuritis	.09			.20	.02
74a	Neurasthenia	.36			.06	.01
60, 65, 70, 73, 74	Diseases of the nervous system (others)	.06			.03	.01
	VI. MENTAL ALIENATION.					
67	General paralysis of the insane	.06				
68a	Constitutional psychopathic states	.08				.04
68b	Dementia praecox	.16				.03
68c	Mental deficiency	.08				.03
68d	Psychasthenia	.00				.02
68e	Psychoneurosis	.04				
56b	Psychoses (alcoholic)	.02				
68f	Psychoses (nonalcoholic)	.05			.01	.01
68	Mental alienation (others)				.14	
75	VII. EYES AND THEIR ANNEXA, DISEASES OF.					
75a	Conjunctivitis	.13			.12	.28
75b	Trachoma	.00				.04
75c	Refractive errors	.07				

ABLE No. XXI.—*Total days lost—total noneffective—total army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Num-bers of nterna-tional lassifi-ations.		Panama.	Native troops.			
			Porto Ricans.			Philip-pine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515	....	....	698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	VII. EYES AND THEIR ANNEXA, DISEASES OF—continued.					
75e	Iritis	.06	....	....	....	....
75f	Keratitis	.02	....	....	....	.01
75g	Choroiditis	.00	....	....	....	....
75h	Retinitis	.05	....	....	....	....
75i	The eyes and annexa (other diseases of)	.08	....	....	.08	.07
76	VIII. EAR, DISEASES OF.					
76a	Mastoiditis	....	....	....	....	....
76b	Otitis media	.26	....	....	.01	.01
76c	Ears, other diseases of	.02	....	....	.09	.02
86	IX. NASAL FOSSÆ, DISEASES OF.					
86a	Adenoids	....	....	....	....	....
86b	Deviation of nasal septum or spurs	.25	....	....	.01	....
86c	Sinusitis	.06	....	....	.00	....
86d	Nasal fossæ, other diseases of	.06	....	....	.80	.10
	X. THROAT, DISEASES OF.					
87	Larynx, diseases of	.02	....	....	.01	.02
100	Pharynx, diseases of	.06	....	....	.05	.04
100a	Tonsils, diseases of	.59	....	....	.13	.07
	XI. CIRCULATORY SYSTEM, DISEASES OF.					
77	Pericarditis	....	....	....	....	....
78	Endocarditis, acute	....	....	....	....	....
79	Valvular heart diseases	.07	....	....	.04	....
79a	Heart, other organic diseases of	.07	....	....	.05	.03
80	Angina pectoris	....	....	....	....	....
81a	Aneurysm	....	....	....	....	....
81	Arteries, other diseases of	.01	....	....	....	.01
82	Embolism and thrombosis	.00	....	....	....	....
83a	Hemorrhoids	.23	....	....	.04	.04
83b	Varicocele	.27	....	....	.00	....
83	Veins, other diseases of	.09	....	....	....	.02
84a	Status lymphaticus	....	....	....	....	....
84	Lymphatic system, other diseases of	1.18	....	....	.66	.17
85a	Cardiac arrhythmias	.00	....	....	....	....
85b	Cardiac murmur, not organic	.01	....	....	....	....
85c	Cardiac disorders, functional	.02	....	....	....	....
85d	Hemorrhage	.00	....	....	.00	.01
85	Circulatory system, other diseases of	....	....	....	.01	.00
	XII. RESPIRATORY SYSTEM, DISEASES OF.					
89, 90	Bronchitis	.89	....	....	.70	.81
91	Broncho-pneumonia	.01	....	....	....	.03
92	Pneumonia, lobar	.03	....	....	....	.27
92a	Pneumonia, interstitial	....	....	....	....	....
92b	Pneumonia, unclassified	....	....	....	....	....
93	Pleurisy	.06	....	....	.16	.05
95	Gangrene of lung	....	....	....	....	....
98	Abscess of lung	....	....	....	....	....
96, 97	Respiratory systems, other diseases of	.01	....	....	.09	.06
	XIII. DIGESTIVE SYSTEM, DISEASES OF.					
99	Mouth and annexa, diseases of	.06	....	....	.10	.03
101	Esophagus, diseases of	.00	....	....	....	....
102	Ulcer of the stomach	.12	....	....	....	.02

Table No. XXI.—*Total days lost—total noneffective—total army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Coutinued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515			698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	XIII. DIGESTIVE SYSTEM, DISEASES OF—continued.					
103	Stomach, diseases of (ulcer and cancer excepted)	.24			.01	.17
106	Ankylostomiasis	.05			.23	.08
107	Trichinosis					
107a	Intestinal parasites, others	.02			.04	.07
108	Appendicitis	.64			.15	.02
109	Hernia	.38			.10	.14
109a	Intestinal obstruction	.03				
105, 110	Intestines, other diseases of	.89			.46	.74
112	Hydatid tumor of liver	.00				
113	Cirrhosis of the liver	.05				
114	Cholelithiasis	.03				
115	Cholecystitis	.05				.02
115a	Liver, other diseases of	.15			.59	.02
117	Peritonitis, acute diffuse	.04				
117a	Peritonitis, acute local					
117b	Peritonitis, chronic					.00
117c	Peritoneal adhesions	.03				
118	Other diseases of the digestive system	.00			.00	.00
118a	Pancreatitis					
	XIV. GENITO-URINARY SYSTEM AND ANNEXA, NONVENEREAL DISEASES OF.					
119	Nephritis, acute	.07				.02
120	Nephritis, chronic (Bright's disease)	.40				.02
122	Kidney and annexa, other diseases of	.13				.06
123	Calculi, of urinary passages	.04			.01	
124	Bladder, diseases of	.12			.08	.00
125	Urethra, diseases of	.01				.00
126	Prostate, diseases of	.01				
127	Male genital organs, diseases of (nonvenereal)	.08			.32	.06
	XV. SKIN AND CELLULAR TISSUE, DISEASES OF.					
142	Gangrene					
143	Furuncle	.22			.18	.53
144	Acute abscess	.17			.30	.18
144a	Cellulitis	.23			.15	.23
145	Skin and annexa, other diseases of	.97			.56	.71
	XVI. BONES AND THE ORGANS OF LOCOMOTION, DISEASES OF.					
146	Osteomyelitis	.10				
146a	Bones, other diseases of (tuberculosis excepted)	.04			.02	.01
147	Joint, diseases of (rheumatism and tuberculosis excepted)	.08			.02	.06
149	Pes planus	.57				.02
149a	Organs of locomotion, other diseases of	.40			.11	.13
	XVII. CONGENITAL MALFORMATIONS AND ILL-DEFINED DISEASES.					
150	Congenital malformations	.34			.05	.05
189	Not specified or ill-defined diseases	.32			.28	.64
	Total for diseases	23.69			19.83	14.56

TABLE NO. XXI.—*Total days lost—total noneffective—total army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico.	In Panama.	Total.	
	Mean strength	2,960,515	....	....	698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
Office classification.	TRAUMATISMS PRODUCED BY EXTERNAL CAUSES.					
	Total	4.15	....	....	1.38	2.16
03	Bites	.00	....	....	....	.01
04	Burns	.05	....	....	....	.04
05, 06	Burns, chemical and X-ray	.02	....	....	.02	....
09	Compression (brain)	....	....	....	....	....
10	Concussion (brain)	.07	....	....	....	.04
12	Contusion	.01	....	....	....	.01
14	Crushing	.04	....	....	....	....
17–20	Dermatitis from traumatism	.04	....	....	....	.03
21	Dislocation of joint	.14	....	....	.08	.02
62	Dislocation, articular, cartilage of knee	.07	....	....	....	....
28	Epiphyseal separation	.01	....	....	.19	....
08, 11, 13, 32, 33, 68, 69	Eye and annexa, traumatisms	.01	....	....	.01	.13
34	Foreign bodies	.01	....	....	.00	.00
36	Fracture, simple	1.46	....	....	.13	.31
35	Fracture, compound	.06	....	....	....	.01
38–48	Fracture, faulty union	.03	....	....	.10	....
0x	Fracture near joint with dislocation	....	....	....	....	....
37	Fracture comminuted	.08	....	....	....	....
50	Gases deleterions, absorption of	....	....	....	....	....
51	Gunshot wound	.08	....	....	.01	.07
52–56	Hemorrhage and results	.00	....	....	.02	....
59	Homidices	....	....	....	....	....
66	Poisoning by food	.02	....	....	.00	....
67	Poisoning, other acute	.00	....	....	....	....
96	Secondary result of injury	.25	....	....	....	.05
73	Sprain of joint	.43	....	....	.21	.22
75	Strain	.05	....	....	.00	.02
79	Suicide	....	....	....	....	....
81	Synovitis, traumatic, cause undetermined	.04	....	....	....	.03
85	Venomous bites and stings	.04	....	....	.01	.02
92	Wounds, extensive	....	....	....	....	....
93	Wounds, multiple	.00	....	....	....	.00
94	Wounds, penetrating	.01	....	....	....	....
95	Wounds, perforating	.11	....	....	.08	.01
86–91	Wounds, others	.86	....	....	.43	.86
00–02, 07, 15, 16, 24–27, 29–31, 49, 57, 58, 60, 61, 63–65, 70–72, 74, 76–78, 82–84, 97–99	Traumatisms, others	.14	....	....	.07	.28
80	Sunstroke	....	....	....	....	....
	Total for diseases	23.69	....	....	19.83	14.56
	Total for external causes	4.15	....	....	1.38	2.16
	Grand total	27.84	....	....	21.20	16.72

TABLE No. XXI.—*Total days lost—total noneffective—total army (including officers, American and native troops) for the year 1917, at home and abroad*—Continued.

RATIOS PER 1,000 OF MEAN STRENGTH—Continued.

Numbers of international classifications.		Panama.	Native troops.			
			Porto Ricans.			Philippine Scouts.
		White.	In Porto Rico	In Panama.	Total.	
	Mean strength	2,960,515	....	....	698,610	2,010,785
	Causes of admission to sick report.	Regulars.	Regulars.	Regulars.		
	EXTERNAL AGENTS PRODUCING TRAUMATISMS, AS SHOWN BEFORE.					
	Total	4.15	....	....	1.38	2.16
01–19	Total military agents	.65	....	....	.23	.50
01	Bayonet	.03	....	....	.02	.06
02	Club	.04	....	....	.02	.08
03	Explosion of mine	....	....	....	....	....
04	Gas, asphyxiative	....	....	....	....	....
05	Gas, poisonous	....	....	....	....	....
06	Flaming fluid	.00	....	....	....	.00
07	Hand grenade	....	....	....	....	....
08	Knife	.04	....	....	.02	.06
09	Pistol ball	.06	....	....	.00	.04
10	Rifle ball	.13	....	....	.09	.02
11	Saber	....	....	....	....	....
12	Shell	....	....	....	....	....
13	Shrapnel	....	....	....	....	....
14	Cutting or piercing instruments	.34	....	....	.09	.24
15	Secondary missile	....	....	....	....	....
16–19	Others, military agents	....	....	....	....	....
20–29	Total by sinking ships	....	....	....	....	....
21	Sinking ships by storm	....	....	....	....	....
22	Sinking ships by submarine	....	....	....	....	....
30–39	Total by air machines	....	....	....	....	....
30	Aeroplane	....	....	....	....	....
31	Balloon	....	....	....	....	....
40–49	Total by vehicles and animals	.43	....	....	.19	.02
40	Automobile	.16	....	....	.10	....
41	Motorcycle	.00	....	....	....	....
42	Railroad accident	.04	....	....	.05	....
43	Street-car accident	....	....	....	....	....
44	Others by vehicles	.02	....	....	.01	.00
45	Animals	.21	....	....	.03	.02
50–59	Total by industrial agents	1.74	....	....	.58	.67
50	Conflagrations	....	....	....	....	....
51	Crushing	.33	....	....	.02	.17
52	Electricity	....	....	....	....	....
53	Fall	1.30	....	....	.54	.41
54	Falling timbers	.06	....	....	....	.00
55	Fire	.03	....	....	....	.01
56	Splinters	.01	....	....	....	.00
57	Machinery	.01	....	....	.01	.07
60–69	Total for extreme temperatures	.00	....	....	....	.00
60	Excessive cold	....	....	....	....	.00
61	Heat	.00	....	....	....	....
70–79	Total by natural causes	.04	....	....	.00	.06
70	Landslides	....	....	....	....	....
71	Lightning	....	....	....	....	....
72	Stones	.00	....	....	....	....
73	Strangulations	....	....	....	.00	....
74	Falling earth	....	....	....	....	....
75	Jumping	.02	....	....	....	.04
76	Hot liquid	.02	....	....	....	.02
80–81	Total by chemicals and poisons	.00	....	....	....	.01
80	Chemicals	.00	....	....	....	.01
81	Poison	....	....	....	....	....
99	All others from external agents	1.29	....	....	.37	.89

INTERNATIONAL TABLE NO. I.—*Movement of sick of Army at home and abroad, 1917*

ABSOLUTE NUMBERS (ENLISTED MEN).

	Mean strength.	Admissions.			Returned to duty and otherwise disposed of.	Dispositions.			Total days sick.
		Disease.	Injury.	Total.		Discharged.	Died.	Remaining.	
United States	558,668	495,431	51,200	546,631	479,815	16,995	3,611	46,210	5,065,255
Europe	45,651	33,972	3,852	37,824	31,477	76	205	6,066	342,459
Philippine Islands	10,879	9,046	1,389	10,435	10,039	91	44	261	146,409
Hawaii	11,415	6,943	1,674	8,617	8,207	149	49	212	113,567
Panama	8,111	5,842	937	6,779	6,522	73	27	157	82,420
Mexico	825	450	51	501	479	9	9	4	8,159
China transports and others	4,096	11,960	887	12,847	10,929	231	91	1,596	116,539
Total	639,645	563,644	59,990	623,634	547,468	17,624	4,036	54,506	5,874,808

INTERNATIONAL TABLE NO. II.—*Movement of sick of Army at home and abroad, 1917.*

PROPORTIONATE NUMBERS (ENLISTED MEN).

	In 1,000 of mean strength.				In 1,000 disposed of.			Days lost.	
	Mean strength.	Admissions.			Returned to duty and otherwise disposed of.	Discharged.	Died.	Per soldier.	Per admission.
		Disease.	Injury.	Total.					
United States	558,668	886.81	91.65	978.46	958.82	33.96	7.22	9.06	9.27
Europe	45,651	744.17	84.38	828.55	991.15	2.39	6.46	7.50	9.05
Philippine Islands	10,879	831.51	127.68	959.19	986.73	8.94	4.32	13.46	14.03
Hawaii	11,415	608.23	146.65	754.88	976.44	17.73	5.83	9.95	13.18
Panama	8,111	720.26	115.52	835.78	984.90	11.02	4.08	10.16	12.16
Mexico	825	545.45	61.82	607.27	961.80	18.07	18.07	9.89	16.28
China transports and others	4,096	2,919.92	216.55	3,136.47	971.38	20.53	8.09	28.45	9.07
Total	639,645	881.18	93.79	975.00	962.00	30.97	7.09	9.18	9.42

INTERNATIONAL TABLE NO. III.—*Movement of sick, by arms of service, army, enlisted men, American troops.*

Arms of service.	Absolute numbers.								Proportionate numbers.					
	Mean strength.	Admissions.			Disposition.				Per 1,000 mean strength.				Per 1,000 of sick disposed of.	
									Admissions.			Deaths.	Fit for duty and otherwise disposed of.	Deaths.
		Disease.	Injury.	Total.	Returned to and otherwise disposed of.	Discharged.	Deaths.	Remaining.	Disease.	Injury.	Total.			
Infantry	311,812	304,305	28,136	332,441	290,366	10,256	2,404	29,415	975.92	90.23	1,066.16	7.71	958.22	7.93
Cavalry	36,662	28,944	7,002	35,946	34,157	804	181	804	789.48	190.99	980.47	4.94	971.97	5.15
Coast Artillery	40,998	26,214	3,842	30,056	27,676	750	124	1,506	639.40	93.71	733.11	3.02	969.39	4.34
Field Artillery	78,352	68,833	8,362	77,195	67,971	2,019	383	6,822	878.51	106.72	985.23	4.89	965.87	5.44
Engineers	38,187	33,034	3,399	36,433	31,536	952	223	3,722	865.06	89.01	954.07	5.84	964.08	6.82
Ordnance	4,076	11,201	966	12,167	10,433	456	78	1,200	2,748.04	237.00	2,985.03	19.14	951.31	7.11
Signal Corps	15,852	10,028	1,108	11,136	9,911	218	39	968	632.60	69.90	702.50	2.46	974.72	3.84
Hospital Corps	34,161	31,670	2,651	34,321	30,308	1,011	156	2,846	927.08	77.60	1,004.68	4.57	962.92	4.96
Others	79,545	49,415	4,524	53,939	45,110	1,158	448	7,223	621.22	56.87	678.09	5.63	965.62	9.59
Total	639,645	563,644	59,990	623,634	547,468	17,624	4,036	54,506	881.18	93.79	974.97	6.31	961.94	7.09

INTERNATIONAL TABLE NO. IV.—*Movement of sick by months, 1917, American troops (enlisted men) at home.*

ABSOLUTE NUMBERS.

Month.	Mean strength.	Sick admissions (total).	Returned to duty and otherwise disposed of.	Discharged.[1]	Died.[2]	Remaining.
January	160,119	15,387	14,972	275	101	39
February	160,246	12,323	11,980	161	145	37
March	146.668	9,507	9,206	184	99	18
April	196.898	12.165	11,704	341	102	18
May	249,749	17,234	16,670	426	110	28
June	313,061	18,401	17,866	415	83	37
July	464,297	21,260	20,343	773	60	84
August	570,255	29,984	28,791	951	68	174
September	972.313	46.759	44,432	1,861	97	369
October	1,093,515	78,326	73,855	2,977	273	1,221
November	1,128,729	109,114	99,543	3,384	1,059	5,128
December	1,248,172	124,971	84,052	3,805	743	36,371
Total	558,668	495,431	433,414	15,553	2,940	43,524

[1] Not including 329 discharges of cases admitted in 1916. Total discharges, 15.882; ratio, 28.43.
[2] Not including 44 deaths of cases admitted in 1916. Total deaths, 2,984; ratio, 5.34.

INTERNATIONAL TABLE NO. IV a.—*Movement of sick by months, 1917, American troops (enlisted men) at home (annual rates).*

PROPORTIONATE NUMBERS.

Month.	Per 1,000 mean strength.					Per 1,000 sick disposed of.		
	Total sick admissions.	Returned to duty and otherwise disposed of.	Discharged.[1]	Died.[2]	Remaining.	Returned to duty and otherwise disposed of.	Discharged.[1]	Died.[2]
January	1,153.19	1,122.06	20.61	7.57	2.92	975.50	17.92	6.58
February	922.79	897.11	12.06	10.86	2.77	975.10	13.10	11.80
March	777.86	753.23	15.05	8.10	1.47	970.18	19.39	10.43
April	741.41	713.31	20.78	6.22	1.10	963.53	28.07	8.40
May	828.08	801.00	20.47	5.28	1.35	968.85	24.76	6.39
June	705.34	684.84	15.91	3.18	1.42	972.88	22.60	4.52
July	549.48	525.78	19.98	1.55	2.17	960.66	36.50	2.83
August	630.96	605.86	20.01	1.43	3.66	965.82	31.90	2.28
September	577.09	548.37	22.97	1.20	4.55	957.79	40.12	2.09
October	859.54	810.47	32.67	3.00	13.40	957.85	38.61	3.54
November	1,160.03	1,058.28	35.98	11.26	54.52	957.27	32.55	10.18
December	1,201.48	808.08	36.58	7.14	349.70	948.67	42.95	8.39
Total	886.81	775.80	27.84	5.26	77.91	959.08	34.42	6.51

[1] Not including 329 discharges of cases admitted in 1916. Total discharges, 15,882.
[2] Not including 44 deaths of cases admitted in 1916. Total deaths, 2,984.

INTERNATIONAL TABLE No. IV b.—*Movement of sick by months—American troops in Philippine Islands.*

ABSOLUTE NUMBERS.

Month.	Mean strength.	Sick admissions. total.	Returned to duty and otherwise disposed of.	Discharged.	Died.	Remaining.
January	12,645	845	831	11	2	1
February	12,327	706	691	12	....	3
March	13,479	793	776	13	1	3
April	12,366	780	764	7	3	6
May	12,410	762	751	7	2	2
June	12,219	980	965	5	5	5
July	11,684	890	877	7	1	5
August	10,624	786	765	7	3	11
September	8,910	674	652	2	3	17
October	8,142	662	651	2	....	9
November	8,109	594	564	1	3	26
December	7,642	574	420	4	1	149
Total	130,557	9,046	8,707	[1] 78	[2] 24	237

[1] Eight dicharges of cases remaining from 1916.
[2] Two deaths of cases remaining from 1916.

INTERNATIONAL TABLE No. IV c.—*Movement of sick by months. American troops in Philippine Islands.*

PROPORTIONATE NUMBERS.

Month.	Mean strength.	Per 1,000 mean strength.					Per 1,000 sick disposed of.		
		Sick admissions, total.	Returned to duty and otherwise disposed of.	Discharged.	Died.	Remaining.	Returned to duty and otherwise disposed of.	Discharged.	Died.
January	12,645	66.82	65.72	0.87	0.16	0.08	984.60	13.03	2.37
February	12,327	57.27	56.06	.97	......	.24	982.93	17.07	......
March	13,479	58.83	57.57	.96	.07	.22	982.28	16.46	1.27
April	12,366	63.08	61.78	.57	.24	.49	987.08	9.04	3.88
May	12,410	61.40	60.52	.56	.16	.16	988.16	9.21	2.63
June	12,219	80.20	78.98	.41	.41	.41	989.74	5.13	5.13
July	11,684	76.17	75.06	.60	.09	.43	990.96	7.91	1.13
August	10,624	73.98	72.01	.66	.28	1.04	987.10	9.03	3.87
September	8,910	75.65	73.18	.22	.34	1.91	992.39	3.04	4.57
October	8,142	81.31	79.96	.25	......	1.11	996.94	3.06	......
November	8,109	73.25	69.55	.12	.37	3.21	992.96	1.76	5.28
December	7,642	75.11	54.96	.52	.13	19.50	988.24	9.41	2.35
Total	130,557	69.29	66.69	.60	.18	1.82	988.42	8.85	2.72

INTERNATIONAL TABLE NO. V.—*Movement of sick in the States, enlisted men, year 1917.*

State.	Mean strength.	Admissions from disease.		Deaths from disease.	
		Absolute numbers.	Per 1,000 of mean strength.	Absolute numbers.	Per 1,000 of mean strength.
Alabama	18,730	12,896	688.52	31	1.65
Alaska	675	224	331.85	2	2.96
Arizona	9,514	10,134	1,065.17	72	7.57
Arkansas	10,769	14,527	1,348.96	211	19.59
California	32,592	22,755	698.18	124	3.80
Colorado	4,049	2,135	527.29	13	3.21
Connecticut	235	1,189	5,059.57	4	17.02
Delaware	1,223	486	397.38	5	4.09
District of Columbia	7,618	3,019	396.30	19	2.49
Florida	3,981	1,712	430.04	2	.50
Georgia	39,653	45,799	1,154.99	317	7.99
Idaho	365	552	1,512.33	3	8.22
Illinois	12,815	7,141	557,24	20	1.56
Indiana	6,368	4,150	651.70	7	1.10
Iowa	8,369	9,666	1,154.98	23	2.75
Kansas	15,836	27,645	1,745.71	235	14.84
Kentucky	9,406	12,742	1,354.67	55	5.85
Louisiana	5,829	8,917	1,529.76	132	22.65
Maine	2,799	1,693	604.86	10	3.57
Maryland	9,725	8,549	879.07	23	2.36
Massachusetts	18,091	11,398	630.04	32	1.77
Michigan	8,874	6,399	721.10	11	1.24
Minnesota	4,997	3,078	615.97	4	.80
Mississippi	9.522	10,354	1,087.38	67	7.04
Missouri	5,003	4,376	874.68	52	10.39
Montana	1,377	902	655.05	4	2.90
Nebraska	1,934	1,423	735.78	2	1.03
Nevada	70	65	928.57	....	....
New Hampshire	665	359	539.85	....	....
New Jersey	15,822	11,773	744.09	45	2.84
New Mexico	13,902	14,059	1,011.29	93	6.69
New York	52,942	29,363	554.63	108	2.04
North Carolina	9,503	7,965	838.16	21	2.21
North Dakota	3	34	11,333.33	....	....
Ohio	14,225	13,237	305.45	84	5.90
Oklahoma	10,126	2,497	246.59	10	.99
Oregon	1,637	1,296	791.69	4	2.44
Pennsylvania	17,221	4,796	278.50	13	.75
Rhode Island	2,301	1,384	601.48	3	1.30
South Carolina	25,931	21,518	829.82	250	9.64
South Dakota	172	95	552.33	1	5.81
Tennessee	1,137	824	724.71	1	.88
Texas	89,861	102,081	1,135.99	641	7.13
Utah	3,070	3,158	1,028.66	12	3.91
Vermont	3,858	2,939	761.79	8	2.07
Virginia	19,032	14,622	768.28	96	5.04
Washington	18,119	19,932	1,100.06	43	2.37
West Virginia	418	152	363.64	1	2.39
Wisconsin	4,938	1,965	397.93	....	....
Wyoming	2,774	4,012	1,446.29	15	5.41
Others	592	3,444	581.76	11	18.58
Total	558,668	495,431	886.81	2,940	5.26

International Table No. VI.—*Movement of sick according to most important diseases.*

No. International nomenclature.	Diseases of the International nosological table.	Absolute numbers.									Proportionate numbers.					
					Disposed of in 1917.						Per 1,000 of mean strength.		Per 1,000 disposed of.			
		Remaining at close of 1916.	Admitted 1917.	Total remaining and admitted.	Returned to duty and otherwise disposed of.	Died.	Discharged.	Total.	Remaining at close of 1917.	Total days sick in 1917.	Admissions.	Deaths.	Returned to duty and otherwise disposed of.	Died.	Discharged.	Average days of treatment.
1	Alkoholismus acutus [1]	13	1,598	1,611	1,550	28	12	1,590	21	7,296	2.50	0.04	974.84	17.61	7.55	4.57
2	Appendicitis, typhlitis, and perityphlitis	102	6,394	6,496	5,600	80	34	5,714	782	119,220	10.00	.12	980.05	14.00	5.95	18.65
3	Bronchitis	296	49,626	49,922	46,025	5	56	46,086	3,836	285,229	77.58	.01	998.68	.11	1.21	5.75
4	Diphtheria et croup	7	1,221	1,228	1,038	13	2	1,053	175	21,256	1.91	.02	985.75	12.35	1.90	17.41
5	Dysenteria	39	614	653	586	4	23	613	40	15,316	.96	.01	955.95	6.53	37.52	1.00
6	Erysipelas	24	691	715	567	4	5	576	139	9,982	1.08	.01	984.37	6.94	8.68	14.45
7	Febris intermittens (malaria)	57	5,863	5,920	5,812	10	7	5,829	91	46,708	9.17	.02	997.08	1.72	1.20	7.97
8	Febris recurrens	1	35	36	36	......	....	36	....	272	.05	....	1,000.00	....	....	7.77
9	Fractura ossium	122	5,741	5,863	4,748	111	75	4,934	929	157,485	8.98	.17	962.30	22.50	15.20	27.43
10	Gonorrhea	372	52,411	52,783	50,063	4	343	50,410	2,373	516,324	81.94	.01	993.12	.08	6.80	9.85
11	Hernia	57	5,622	5,679	4,468	7	517	4,992	687	113,830	8.79	.01	895.03	1.40	103.57	20.25
12	Influenza	215	38,764	38,979	36,975	14	4	36,813	2,166	429,668	60.60	.02	1,004.40	.38	.11	11.08
13	Luxationes articulorum	9	1,131	1,140	807	2	204	1,013	127	15,278	1.77	.00	796.64	1.97	201.38	13.51
14	Meningitis, cerebro-spinalis, epidemica	8	1,067	1,075	287	331	14	632	443	24,276	1.67	.52	454.11	523.73	22.15	22.75
15	Morbilli	309	50,023	50,332	42,641	975	21	43,637	6,695	561,094	78.20	1.52	977.18	22.34	.48	11.22
16	Parotitis epidemica	41	26,710	26,751	20,339	9	1	20,349	6,402	312,526	41.76	.01	999.51	.44	.05	11.74
17	Pleuritis	33	3,464	3,497	3,002	13	64	3,079	418	40.637	5.42	.02	974.99	4.22	20.79	11.73
18	Pneumonia crouposa sive lobaris	131	7,542	7,673	4,456	798	27	5,281	2,392	159,713	11.79	1.25	843.78	151.11	5.11	21.18
19	Rheumatismus articulorum	62	5,337	5,399	4,406	5	80	4,491	908	77,706	8.34	.01	981.07	1.11	17.81	14.56
20	Scarlatina	6	2,206	2,212	1,463	60	3	1,526	686	50,078	3.45	.09	958.72	39.32	1.97	22.70
21	Scorbutus	1	5	6	6	......	....	6	....	47	.01	....	1,000.00	....	....	9.40
22	Syphilis	226	10,057	10,283	8,512	24	425	8,961	1,322	213,212	15.72	.04	949.89	2.68	47.43	12.26
23	Trachoma	2	476	478	234	......	197	431	47	7,439	.74	....	542.92	....	457.08	15.63
24	Tuberculosis pulmonum	80	7,252	7,332	2,153	108	3,622	5,883	1,449	185,216	11.34	.17	365.97	18.36	615.67	25.54
25	Tuberculosis ceterorum organorum	2	504	506	230	26	175	431	75	12,530	.79	.04	533.64	60.32	406.03	24.86
26	Typhus abdominalis	1	287	288	205	22	2	229	59	12,515	.45	.03	895.20	96.07	8.73	43.61
27	Typhus exanthematicus	....	6	6	6	......	....	6	....	123	.01	....	1,000.00	....	....	20.50
28	Ulcus molle	206	9,487	9,693	8,848	1	14	8,863	830	146,007	14.83	.00	998.31	.11	1.58	15.39
29	Variola	1	149	150	109	2	....	111	39	2,959	.23	.00	981.98	18.02	....	19.86
30	Morbi auris	101	7,320	7,421	5,820	21	605	6,446	975	80,133	11.44	.03	902.89	3.26	93.86	10.95
31	Morbi cordis	142	16,040	16,182	12,637	85	1,845	14,567	1,615	215,709	25.08	.13	867.51	5.83	126.66	13.45
32	Morbi cutis	154	23,830	23,984	22,611	23	152	22,786	1,198	195,396	37.26	.04	992.32	1.01	6.67	8.20
33	Morbi mentis	64	4.114	4,178	1,517	9	2,138	3,664	514	91,377	6.43	.01	414.03	2.46	583.52	22.21
34	Morbi oculi	42	7,781	7,823	6,897	4	507	7,408	415	61,046	12.16	.01	931.02	.54	68.44	7.85
35	Morbi systemat. urin. et sexual (excluding venerie et syphilis)	64	7,196	7,260	6,113	55	368	6,536	724	93,287	11.25	.09	935.28	8.41	56.30	15.26

[1] Includes psychosis alcoholic, acute hallucinosis, and delerium tremens.

INTERNATIONAL TABLE No. VII.—Omitted.

INTERNATIONAL TABLE No. VIII.—*Admissions for selected infectious diseases by months, enlisted men in United States, 1917.*

Disease.	Admissions by months.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Measles (all)	632	1,195	817	764	1,472	1,561	1,007	678	998	4,447	21,717	12,285	47,573
Measles with no complications	546	950	705	699	1,406	1,488	987	666	958	4,236	20,094	11,423	44,158
Measles with broncho-pneumonia	26	73	33	20	7	14	2	5	9	82	775	326	1,372
Measles with lobar pneumonia	13	48	19	7	11	9	....	2	7	66	316	205	703
Measles with complications other than pneumonia	47	124	60	38	48	50	18	5	24	63	532	331	1,340
Lobar pneumonia	233	205	211	184	178	118	106	133	231	877	2,035	2,453	6,964
Broncho-pneumonia	32	28	41	39	32	21	15	30	59	138	408	625	1,468
Typhoid fever	3	....	1	....	4	5	12	32	50	64	45	12	228
Cerebrospinal meningitis (epidemic)	18	16	16	19	35	22	22	18	10	93	292	410	971
Tuberculosis, pulmonary, chronic	45	22	26	28	39	84	140	342	758	1,244	1,524	1,885	6,137
German measles	33	144	181	166	362	425	289	191	328	367	2,163	4,333	8,982
Gonococcus infection [1]	588	541	466	960	1,139	1,688	2,424	3,758	8,935	12,069	8,819	6,258	47,645
Syphilis [2]	246	179	150	153	185	235	303	418	1,113	2,053	1,864	1,570	8,469
Chancroid	278	208	146	163	242	258	385	530	1,081	1,693	1,359	1,109	7,452
Scarlet fever	33	61	64	116	150	170	118	66	97	132	323	636	1,966
Mumps	331	376	350	495	638	775	765	585	746	1,713	4,257	10,694	21,725

[1] Excludes 15 cases gonorrheal stricture.

[2] Excludes 5 cases of syphilitic retinitis.

INTERNATIONAL TABLE No. IX.—Omitted.

INTERNATIONAL TABLE NO. X.—*Discharges for disability, American troops, 1917.*

Disability.	Not in line of duty.
Venereal diseases	779
Alcoholism	141
All other causes	15,558

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